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Commodore AMIGA

ANNUAL 1992

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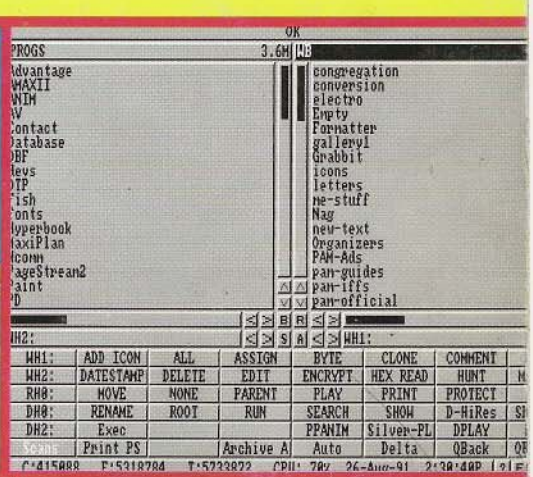

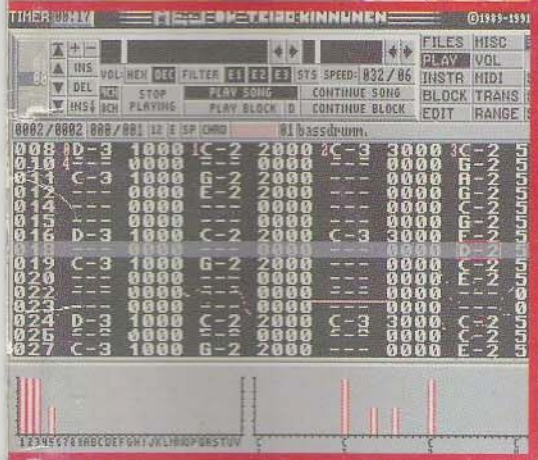

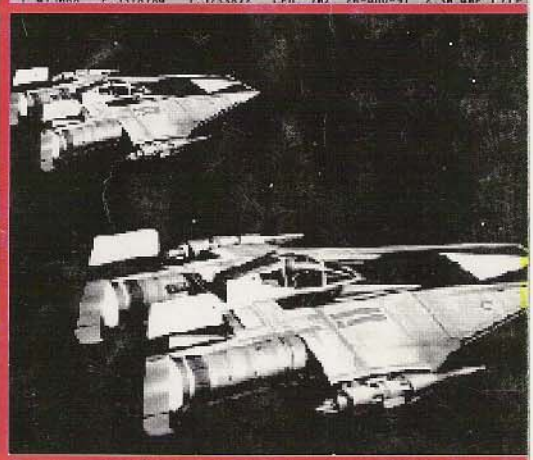

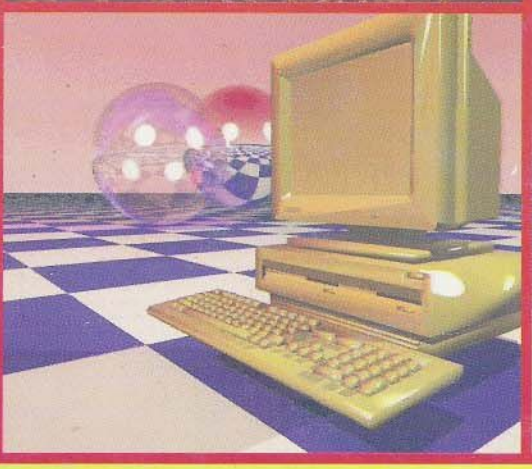

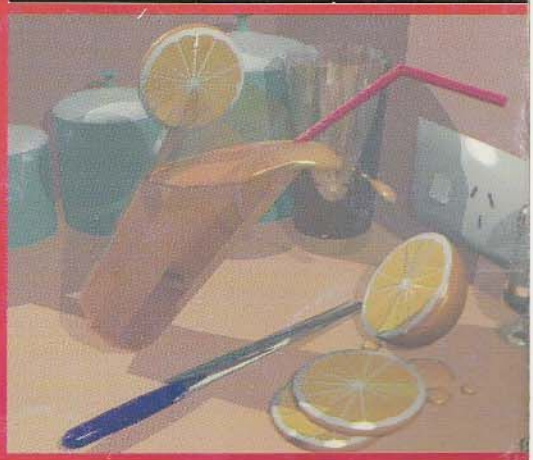

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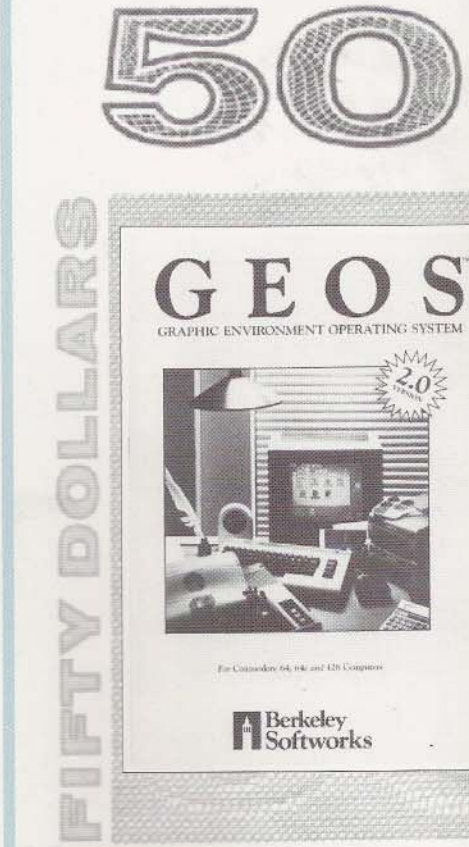

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What is GeoWorks? For those of you not in the know, GeoWorks have staged a revolution in the PC world. According to *Info World* USA '*GeoWorks is what Windows 3.0 should have been.*'

GeoWorks Ensemble has a very powerful word processor (*Gareth Powell* said you could use it for DTP). It has a drawing program, a disk and file manager, a planner/diary, a communications package and heaps of other applications that generally make life in PC land much much easier. **GeoWorks Pro** has all this as well as Quatro Pro SE, a professional level spreadsheet. (See Specs)

Why is GeoWorks the software for your PC? Because it is what Windows 3.0 should have been. But don't take our word for it, look at what the experts are saying.

"Makes my PC as easy to use as the Mac"
Roland John Donovan, Writer's Digest

"I would be quite happy to use it as the principal program on my computer."
Gareth Powell, PC Review Dec 1991

"Performance that Windows can only dream of."
PC Computing, USA

So, why would anyone who owns a C64 or 128 and a PC want to buy GeoWorks? For the same reason you bought GEOS in the first place.

It is a simple to use and very memory efficient program. It is a Graphical User Interface with menus, windows, gadgets, icons and all the things we have come to expect off the BIG Guns like Amigas, Macs and 486's with Windows.

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- GeoManager disk & file manager
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GeoWorks Pro

Includes all of the above plus:

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System Requirements

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Preface

1992 ANNUAL

The Australian COMMODORE & AMIGA Review

I admit it! This *Annual* was never intended to appear so late in the year. I could tell you about the time an airliner crashed into the offices of Gareth Powell Publishing, or the time when a volcanic eruption created havoc at the printers, or perhaps how the postman was caught up in an international terrorist operation when he was kidnapped moments before delivering your copy.

Instead, I thought it better to look at the positive side of being late. For example, we were able to bring you a report on DCTV - an amazing 24-bit (16.7 million colour, television quality) digitiser/display/paint package. This astounding device will even play full 24-bit animation in real time!

It would have been great to include more on Workbench 2.0, or perhaps talk more about the wonderful new machines Commodore might ship this year. But at the time of writing Workbench 2.0 was still in short supply and the new machines remain nothing more than strong rumours. However, it is very likely the World of Commodore Show in July will see the launch of at least one new model.

It has certainly been a very odd year for the Amiga and no doubt 1992 will see a time of sorting out in the Amiga world. In 1991 Commodore sold nearly one million machines - a third of what they have sold since the original launch in 1987. At the same time, the Amiga has come under heavy fire from the MS-DOS world as prices continue to tumble.

Here at the *Australian Commodore and Amiga Review*, we believe the Amiga is more fun than any PC. Software is a lot cheaper than MS-DOS or Windows products and you don't have to worry about adding sound cards to play games. If you decide to splash out and buy a genlock, sound digitiser or framegrabber, you'll also find Amiga add-ons are a lot cheaper when it comes to video based items. Heavyweight software products are especially affordable when compared to similar programs on other platforms.

Amiga desktop publishing software is a classic example, coming in at around a third the price of competitors, with almost as many, if not more, features than older more established solutions. So we're confident the Amiga still represents a great value for money home computer. Amiga also remains the undisputed champion for use in animation, presentation video graphics and desktop video. In Europe, it is the top selling machine. In America, Amiga has the video world sewn up. Down under, things may be a little tough. Hang in there Amigans, the new hardware coming soon will put us back on top!

Andrew Farrell
Editor

Since the last Amiga Annual, there have been many exciting developments in the world of the mighty Amiga.

The first was just that: the World of Commodore/Amiga exhibition which was held in Sydney last year. This exciting event was something of an eye-opener for many people, who in the past had not regarded the Amiga as a "serious" computer. After seeing the incredible capabilities of the Amiga at WOC, we now have many more converts!

The various facets of the World of Commodore/Amiga exhibition, which was widely supported by both local and international suppliers, demonstrated the Amiga as the perfect all-round computer. Applications shown covered the full gamut from an entry level home machine right through to advanced, highly sophisticated applications that even yet other platforms cannot achieve.

I'm sure this fact alone is what makes the Amiga so popular - and that popularity shows no signs of diminishing.

Incidentally, if you missed the World of Commodore/Amiga, another one is planned for this year! Keep the dates free: July 3, 4 and 5 at Darling Harbour Exhibition Centre.

During the year, the three millionth Amiga was sold - and, on a per capita basis, Australia is one of the Amiga's most successful markets. For that, I have to thank you most sincerely, for without you demonstrating your faith in the Amiga by buying it, we would not have achieved the success we have.

I must also express my deepest thanks for the support given by the media in general, including the *Amiga Annual*. As you no doubt know, the *Amiga Annual* is completely independent of Commodore and is thus very objective in its approach.

Other big events this year included the launch and success of the Commodore Dynamic Total Vision (CDTV) system which has, of course, an Amiga computer as its heart. We at Commodore firmly believe multimedia is the direction all personal computers will go in the future - the Amiga is there already!

Pat Byrne
Managing Director
Commodore Australia

A Beginner's Guide to your Amiga

Just starting out? Still trying to unravel Workbench or just plain overwhelmed with computer jargon? Here's the article you need to read, by Amiga expert *Andrew Leniart*.

Lashed out and bought yourself an Amiga then, did you? I remember when I got my Amiga 500. I paid for it with Bankcard at the local Midi-Mouse computer store here in Hoppers Crossing. It was a Starter Pack complete with TV modulator, a few software titles, including a wordprocessor called *TextCraft* and a game or two. I figured that a word processor wouldn't be much use without a printer so I got one of those too.

I didn't have a hard drive back then and (despite the convincing speech the salesman put to me) I was adamant that I would never need one either. I'm sitting here writing this grinning from the memories. Let me take you back to that day so you can share why it's so amusing to me now.

Along the way I hope to share lots of helpful information to get you started.

The Big Purchase

Having paid for the machine with a credit card, the first thing I had to do was convince my wife that this was an essential purchase. No way could I come home and say to the better half, "I was in the computer store and was so impressed with the game which was on display (*Interceptor*, yeah!) that I just had to have it." Oh no, that would be like committing suicide. I had to sell this thing, make it seem like it was the answer to all our financial problems and not the start of them.

By the time I got home, I had it all worked out. Luckily, the better half was not home at the time, so I got in the house, ripped open the boxes and proceeded to set the thing up in front of the telly.

There was polystyrene everywhere! Tossing the manual to one side I plugged in the power pack, hooked up the telly and switched it all on. Nothing! Just a hand holding a disk.

Wait, a disk, that's it! Digging around the mess on the floor I located the Workbench disk and slammed it in DF0: The Amiga came to life and pretty soon I had a Workbench up on screen.

Just about then my wife arrived home. "What's all this then?" I took a deep breath and went into my speech.

"This here is the answer to all the problems we've been having with our budgeting. It'll balance our check book, teach Amelia (our daughter) all about computers and help you no end with boring tasks like writing letters and err ... like that."

"Yes dear," says Joy as she gives me a knowing look and picks up the box which *Interceptor* came in. "I hope you didn't pay for this out of our Christmas savings."

She walks out of the room and I'm left to go on experimenting with my new toy. I'm off the hook. Well, at least until the bankcard statement arrives at the end of the month!

Up and Running

I began to experiment with Workbench. Clicking on icons here and there, opening drawers, closing them again, dragging them from one spot to another. What a great machine. After a few hours of playing around, blasting away aliens on a couple of public domain games I got with the machine and shooting some Migs out of the sky with *Interceptor*. I eventually decided to take a look at the Manual which Commodore supplied with my purchase.

Like most people, you'll probably do what I did and first turn to the (ahem) Users Manual supplied with the machine. Now unless you have a natural talent towards computers and how they operate, you will probably find this manual confusing for a beginner and incomplete in more ways than one. It's great for explaining things like write protecting your disks and goes into two pages of detail complete with photos on how to do it. But when it comes to explaining AmigaDOS, well, you'll see for yourself soon enough.

(*Commodore will start shipping the Amiga with Workbench 2.04 during 1992. The new operating system has a much improved manual* - **Ed.**)

Help Is On the Way

One source of help is by doing what you're doing right now. Reading magazines such as *Australian Commodore and Amiga Review* is a great way to learn more about your new computer. Each issue contains many articles and tutorials written by people in the know. Normally there's plenty aimed right at the beginner too.

Other magazines such as *Megadisc* (a bimonthly magazine on a disk), *Amiga World, Amazing Computing* and a few others are also valuable sources of information for a beginner.

User groups can also provide an excellent source of information because you get the chance to meet with people who share similar interests to yourself. (*There is a list of user groups in this Annual* - **Ed.**)

Most user groups will give you free access to thousands of public domain programs which you can use and play with to your heart's content while spending nothing more than the price of a disk. If you don't know the meaning of public domain software, then keep reading and you soon will. With the prices of software these days, I can guarantee you'll love the idea. More on that later.

Common Jargon

Now that you have this fab machine, you have to start getting used to terms that you'll commonly hear when like minded enthusiasts talk or write about your machine. Computer users tend to have a language all of their own, so you'll need to learn a bit of it to understand what they're on about. It's like when you had to learn French at school, only heaps easier and lots more fun.

Let's have a look at some of the more common ones you'll come across.

BOOTING UP - You do this with the Amiga every time you switch on the power and throw a Workbench disk into the drive. Unless you have an auto-booting hard drive attached to your machine, you need to supply an operating system using floppy disk. That's what the Workbench disk does. The programs on this disk give you an environment to work in and give you the means to communicate with your Amiga.

WARM BOOT - Giving the Amiga a warm boot simply means to restart (often called "to reset") it by pressing both Amiga keys along with the Ctrl key. (Ctrl-Amiga-Amiga). This practice is also sometimes referred to as a three fingered salute.

COLD BOOT - Similar to a warm boot, a cold boot simply means that you actually have powered the machine OFF and then powered back ON to reset. When you switch on the Amiga for the first time in the day and boot up your Workbench, you are doing a 'cold boot'.

CLI - Stands for Command Line Interface. This is the Amiga's equivalent to the way people talk to IBM clones using their keyboard. By clicking on a CLI or Shell icon on your workbench, you get a window (or CLI) open in which you can use AmigaDOS commands to control and issue commands to your Amiga using the keyboard. It's the most powerful way to control the Amiga and access all of its features.

You can learn more about using the CLI by obtaining back issues of *Australian Commodore and Amiga Review* where I have devoted over 12 months of tutorials on this subject in my CLI Tutorial column.

FLOPPY DISK - Laugh if you want to, but when I first got my computer, I couldn't for the life of me understand why everyone insisted that these hard little diskettes were called floppies.

Care of Your Amiga

Your Amiga is an expensive investment and worth a little time and effort once a week or so to keep it in tip top shape. Here are a few hints on how to ensure that you give yourself every possible chance of getting the longest life span from your machine. Most of the ideas will be recognised as common sense by readers that have owned computers before, however they are listed here for those of our readers that have never owned a computer in their lives.

● When not in use, cover your Amiga with some type of plastic covering to protect it from dust and accidental spillage of liquids on it. Even a torn open garbage bag will do the trick, though there are available covers made for this purpose which you can purchase from various computer stores and mail order companies.

● Heat can damage the Amiga's internal components and sometimes even warp plastic components on the outside of the Amiga. With that in mind, don't store the Amiga near a window where a hot summer sun can shine down on it all day.

● If you are a smoker, as I am, try not to smoke when working with your Amiga. It will cause your keyboard to fade and create ugly stains on your monitor's screen. (Talking from experience here). The smoke particles can also create havoc with floppy disks, causing read/write errors and loss of valuable information.

● Speaking of monitors, don't have anything magnetic too close to your monitor. Magnets will not damage your monitor, but they can affect the monitor's display causing a loss of colour in a certain area. If this happens you will have to have the monitor 'Degaussed'.

● And on the topic of magnets, also keep them away from your floppy disks. Computer disks can lose data if exposed to strong magnetic fields.

● Give the Amiga and your accessories a good clean every now and then. A wipe over with a moist cloth takes only a few seconds and if done regularly, keeps the Amiga looking as new as the day you brought it home.

● Likewise with your mouse, if it seems to be performing not as well as it used to, then lint has probably collected on the metal rollers inside which get moved by the ball at the bottom of it. Open up the slide clip on the bottom of it and allow the ball inside to drop out into your hand. You can then use a cotton bud dipped in alcohol to give the metal rollers inside a bit of a clean. Give the ball a wipe over with a *dry* cloth and remove any lint that may be stuck to it. Put it all back together and you'll find that Mickey will be as good as new. ❑

Andrew Leniart may be contacted by writing to him direct at P.O. Box 1335 Hoppers Crossing Vic 3030 or via modem on his Bulletin Board Andy's Attic! (03) 749-4897 Open 24 Hrs a day.

Now the big 5.25 disks were at least soft and sort of floppy, but these 3.5 inch disks are made of plastic and quite firm and hard.

Nevertheless, floppy disks they are so you'd better start getting used to it.

(Of course, the round floppy bit is inside the plastic square you see and compared to the old solid platters used for disk storage, they're very floppy.) Let's add a touch more confusion ...

HARD DISK - Hard disks (often called Hard Drives) don't look like floppy disks. As a matter of fact, they are actually rather expensive pieces of hardware that attach to the side of the Amiga 500, like the Commodore A590, or slot internally with the A2000 and A3000.

They do much the same thing as a floppy disk, except they do it much faster and depending on how large a hard disk you get, have the capacity of storing dozens of disks' worth of data (or information) on them.

For example, as a rule of thumb guide, a 20 Megabyte hard drive can store the same amount of data as about 25 floppy disks. You can access that information (on average) about five or six times faster than you can from a floppy disk and you can take it from me, once you have worked with a hard drive, you will never want to go back to floppy disks again. Life is that much simpler.

MONITOR - Does the same thing as your telly does if you've bought an Amiga 500 and are using the TV as your screen. This does not need much explanation as you will soon learn what it is when the rest of the family start abusing you for hogging the telly all the time with your computer.

On a serious note, a monitor is to my mind, an essential purchase to add to your Amiga.

Not only are you spared the pain of having to fight with the family every time someone wants to watch TV, but everything is a lot sharper and clearer on a proper computer monitor. Commodore have made it possible to use the Amiga with a standard colour television, but think twice before spending the money on a portable telly rather than a proper monitor. I have a Commodore 1084S monitor which was an excellent purchase and have never looked back.

RAM / RAD - Ram is simply a term to describe your computer's memory. It stands for Random Access Memory. The Amiga can treat part of RAM like a disk drive - this is called a RAM drive. Anything you put into RAM will be lost if the machine is reset.

A RAD on the other hand is pretty much the same except that it is not as volatile as RAM. Information stored in RAD will normally still be there after a warm reboot if you set up your system correctly.

A RAD disk must be specially 'mounted' (made available) whereas a RAM disk is there each time you boot up Workbench.

HARDWARE Vs SOFTWARE - A simple rule of thumb here is if you can kick it, it's hardware. Your Amiga is hardware as is a printer or any other device you plug into it.

A floppy disk is a bit tricky. It's called media, like a cassette tape. However the information that is written to (or stored on) that disk is called software. You need a disk drive (hardware) to use the information on the floppy disk (software) so one is effectively useless without the other. Keep that in mind before you shell out big bucks for something, like a bargain priced Laser Jet printer you see advertised in the *Trading Post*, you'll probably need the right printer driver (a program the Amiga uses to talk to your printer).

RODENT/RAT - You'll come across these terms from time to time. They're actually talking about the mouse that moves your pointer around.

MENUS - We use these in restaurants to choose what we want to eat and drink. On the Amiga though, we're talking about the pull down menus you see at the top of the screen when you hold down the right mouse button.

Workbench has its own set of menus and so do most Amiga programs that have been written to take advantage of your mouse. If unsure, hold down your right mouse button and move your pointer to the top left side of the screen. If the software uses menus, they will show up there. When all else fails, you can always read the manual that came with the program.

PIRATE SOFTWARE - This term is used to describe illegal copies of software. For example, if you get yourself a copy of the latest commercial game from a friend rather than buying it, then you and your friend are guilty of software piracy. There is no simpler explanation.

BACKUP - Commercial software is usually accompanied by a notice that it is illegal for you to copy the disk you've paid for. Now this is probably quite true. So we never copy our purchases. We back them up. I'm told it makes all the difference between whether you are breaking the law or not.

Legal or not legal, I believe it is not unreasonable to be able to back up your software purchases for your own use. If I go out and spend $85 on a game then I want to be able to safeguard that purchase.

As long as I do not give a copy of my backups to anyone, I don't think that anyone would jump up and down about it.

An Introduction to Workbench

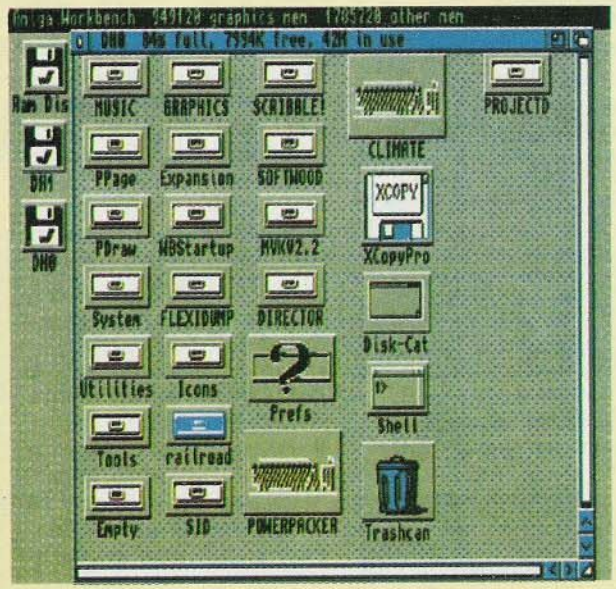
Getting back to some of the goodies that have come with your Workbench disk, let's have a look at the preferences program.

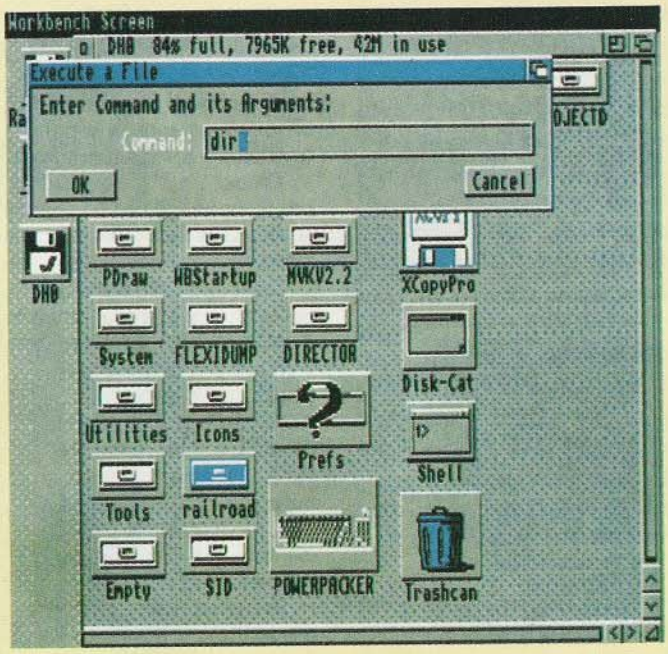
You can customise Workbench to look how you want using the preferences program which is included on the Workbench system disk. If you haven't played around with preferences yet yourself, then have a fiddle as you will discover that there are many things that you can configure to your own tastes.

Colours are naturally totally configurable as is the positioning of the Workbench screen.

You can change the shape and colour of your pointer, increase or decrease the speed of your mouse along with many other things. But what happens to all those settings that you change once you finish and save your setup?

Where does this new configuration get sent to? Well, it all gets saved into





Workbench 2.0 is now available, although in limited supply, for $149 - including a Rom chip, huge manual and four disks

a single file called System-Configuration in the Devs directory of your Workbench disk. If you're thinking that all this is pretty much useless information, then bear with me a minute or so and I think you'll change your mind.

Let's say you get hold of a disk that has a great colour set-up and a created pointer that absolutely blows your mind. You can try to do the same thing for your own disks by using preferences to recreate that fab pointer and colour combination. But that's really doing things the hard way.

There is a much easier way to do it and here's how. Using either the CLI or a directory utility, copy the disk's System-Configuration file from the Devs directory of the disk that has the fab settings over to your own disk's Devs directory. This will over-write your current system configuration file on your disk so be sure you are using a back-up and not an original disk. Once that's done, re boot your Amiga with your disk and you will find that your disk now has the same look and pointer that the one that impressed you did.

A thing to remember though is that you will still need to go into preferences and change things like the printer driver setting to make sure that you have the correct printer driver selected.

The person that created the configuration that you've just copied over may have been using a different printer.

You may also need to change the Date/Time settings if they are incorrect along with a few other things.

Icon Editor

Yet another means of configuring the way your Workbench looks is to change around the appearance of the icons which appear on your Workbench screen.

You can use the icon editor supplied with your Workbench disk to accomplish this, though I wouldn't recommend it. IconEd is not very user friendly and requires quite a bit of fiddling around with it to be able to get the hang of all it's features.

Personally, I would recommend some of the public domain icon editors available which are far less complicated to use, and have quite a few more features to boot.

Again, to get a list of all the free public domain icon editing utilities, get in touch with one of the public domain outlets mentioned elsewhere in the Amiga Annual.

SAY

Firing up the 'Say' utility on your Workbench disk gives you the means to make your Amiga talk to you. A talking computer. What will they come up with next? To use SAY, simply double click its Icon and two windows will open up, one under the other. Click in the window titled 'Input window' and type in a few words you would like the Amiga to say to you. Try 'Hello there, this is your Amiga speaking'.

Once you hit return, the Amiga will speak the sentence you typed back to you in a crude, but recognisable voice. With a bit of practice you will learn how to modify the tone of the Amiga's voice and be able to make it sound more like a male, female or even a robot. If you ever get into programming on the Amiga, you will be able to learn how to incorporate this speech facility into your own programming creations. ❑

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Special compacting techniques enable up to 3 programs to fit on one disk. Now saves directly to disk as Amiga Dos - reloads independently of the cartridge - even transfer to hard drive! Works with up to 2 Megs of Ram - even 1 Meg Chip Mem (Fatter Agnus).

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The full Sprite Editor allows you to view/modify the whole sprite set including any "attached" sprites. PLUS A RANGE OF IMPROVED FEATURES.

- **VIRUS DETECTION**

Comprehensive virus detection and removal features to protect your software investment. Works with all presently known viruses.

NEW **BURST NIBBLER.** Now this super disk copier program is built into Action Replay Mk III. Just imagine a superfast, efficient disk copier program at the press of a key - no more waiting.

- **SAVE PICTURES AND MUSIC TO DISK**

Pictures and sound samples can be saved to disk. Files are saved directly in IFF format suitable for use with all the major graphic and music packages. Samples are displayed as screen waveform.

NEW **PAL or NTSC MODES SELECTABLE** - Useful for removing ugly borders when using NTSC software. (Works only with newer Agnus chips).

- **SLOW MOTION MODE**

Now you can slow down the action to your own pace. Easily adjustable from full speed to 20% speed. Ideal to help you through the tricky parts!

NEW **MANY MORE INSTANT CLI COMMANDS** - like Rename, Relabel, Copy, etc.

- **RESTART THE PROGRAM**

Simply press a key and the program will continue where you left off.

- **FULL STATUS REPORTING**

At the press of a key now you can view the Machine Status, including Fast Ram, Chip Ram, RamDisk, Drive Status, etc.

- **POWERFUL PICTURE EDITOR**

Now you can manipulate and search for screens throughout memory. Over 50 commands to edit the picture plus unique on screen status "overlay" shows all the information you could ever need to work on screens. No other product comes close to offering such dynamic screen handling of frozen programs!!

NEW **JOYSTICK HANDLER** - allows the user to select Joystick instead of Keypresses - very useful for many keyboard programs.

- **MUSIC SOUND TRACKER**

With Sound Tracker you can find the complete music in programs , demos,etc. and save them to disk. Saves in format suitable for most track player programs. Works with loads of programs!!

- **AUTOFIRE MANAGER**

From the Action Replay III preference screen you can now set up autofire from 0 to 100%. Just imagine continuous fire power? Joystick 1 and 2 are set separately for that extra advantage!

NEW **IMPROVED RAM EXPANSION SUPPORT.** Now many more external Ram Expansions will work with all Action Replay III commands.

- **DISKCODER**

With the new "Diskcoder" option you can now 'tag' your disks with a unique code that will prevent the disk from being loaded by anyone else. "Tagged" disks will only reload when you enter the code. Very useful for security.

NEW **SET MAP** - allows you to Load/Save/Edit a Keymap.

- **PREFERENCES**

Action Replay III now has screen colour preferences with menu setup. Customise your screens to suit your taste. Very simple to use.

- **DISK MONITOR**

Invaluable disk monitor - displays disk information in easy to understand format. Full modify/save options.

NEW **IMPROVED PRINTER SUPPORT** - including compressed/small character command.

- **DOS COMMANDS**

Now you have a selection of DOS commands available at all times - DIR, FORMAT, COPY, DEVICE, etc.

NEW **FILE REQUESTOR** - if you enter a command without a filename, then a file requestor is displayed.

- **DISK COPY**

Disk Copy at the press of a button - faster than Dos Copy. No need to load Workbench - available at all times.

NEW **PLUS IMPROVED DEBUGGER COMMANDS** - including Mem Watch Points and Trace.

- **BOOT SELECTOR**

Either DF0 or DF1 can be selected as the boot drive when working with Amiga Dos disks. Very useful to be able to boot from your external drive.

PLUS A MACHINE CODE FREEZER MONITOR WITH EVEN MORE POWER!!

EVEN MORE FEATURES INCLUDING 80 COLUMN DISPLAY AND 2 WAY SCROLLING:-

● Full M68000 Assembler/Disassembler ● Full screen editor ● Load/Save block ● Write String to memory ● Jump to specific address ● Show Ram as text ● Show frozen picture ● Play resident sample ● Show and edit all CPU registers and flag ● Calculator ● Help command ● Full search feature ● Unique Custon Chip Editor allows you to see and modify all chip registers - even write only registers ● Notepad ● Disk handling - show actual track, Disk Sync. pattern etc. ● Dynamic Breakpoint handling ● Show memory as HEX, ASCII, Assembler, Decimal ● Copper Assemble/Disassemble - now with suffix names

REMEMBER AT ALL TIMES YOU ARE INTERROGATING THE PROGRAM IN IT'S "FROZEN" STATE WITH ALL MEMORY AND REGISTERS INTACT - INVALUABLE FOR THE DE-BUGGER OR JUST THE INQUISITIVE!

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A2000 or A500 That is the Question

Is the Amiga 2000 just an overpriced Amiga 500 in a bigger box? Still trying to decide which Amiga to start out with? Peter Friend explains some of the whys and wherefores in choosing the system that's right for you.

This is not a hardware review of the A500 or the A2000. It's a look at the differences between them, especially for people who are wondering which model to buy or whether to upgrade.

When the A2000 first appeared, I assumed it must be some sort of amazing turbo-powered SuperAmiga. Why else would it be a thousand dollars dearer? I was greatly puzzled to learn that it had exactly the same CPU, memory, graphics and sound chips as the A500, and ran the same software at the same speed. Was it a devious con trick, an expensive toy for suckers with more money than brains?

It's now 1992. Prices have dropped, but the cheapest A2000 is still around a thousand dollars dearer than the cheapest A500. Yet I've upgraded from a A500 to an A2000. What made me change my mind?

A2000

Vital Statistics

These days, a standard A500 and A2000 still have identical mouse, joystick, video, parallel, disk drive, audio, serial, and composite video ports, and identical CPU, graphic and sound chips.

The standard memory on an A2000 has increased to one megabyte, compared with an unchanged half megabyte on an A500. Upgrading an A500 to a full megabyte is easily done, but will cost you a little under $100. If you're planning any sort of serious work on your Amiga, a full megabyte is strongly recommended. More and more software packages (and even games) need a megabyte to run, while others have some features disabled when running on a half megabyte machine.

The physical design of the two Amigas is very different. The A500 is just a large bulky keyboard with all the electronics inside it, whereas the A2000 has a separate system box and keyboard and looks more like a traditional PC. They actually take up about the same amount of desk space, because the A2000's system box can sit under the monitor.

The A2000 looks a lot tidier, because nearly all its cables connect neatly out of sight at the back of the system box, whereas the A500 can end up looking like a tangle of spaghetti. Because of all those cables connected to it, the A500 keyboard is also rather unwieldy to move around. If you sometimes want to move the keyboard to one side, or like to type with it sitting on your lap, the separate keyboard of the A2000 is a lot more convenient.

Feel The Difference

But the most important difference between the two Amigas is the almost invisible one: expandability.

The A500 has just two expansion ports. The most commonly used is the internal expansion slot, inside the little door on the underside of the keyboard. This is where most memory expansion boards plug in, as well as things like the KCS Power PC board.

On the left side of the keyboard is the external expansion slot. As the name implies, things plugged in here sit mostly outside the A500, so this slot is used by things too bulky to fit in the internal expansion slot, such as the A590 hard disk.

The A2000 has no fewer than nine expansion slots of various types, all internal. There's a video slot, mostly used for genlocks or Flicker Fixers. A co-processor slot, for boards like the 2620 (a 16 MHz 68020 with maths co-processor and 2 Mb of 32-bit memory) or 2630 (a 25 MHz 68030 with maths co-processor and 2 Mb of 32-bit memory). And three Amiga slots, two Amiga/PC-AT slots, and two PC-XT slots. The PC slots are mostly of interest if you're using something like the BridgeBoard to run PC software.

But even if you think 'PC' is a swearword, you still have five Amiga slots to play with. Hard disks, memory expansion, modems, local area networks, digitizers, and almost anything else can plug in here.

Decisions, decisions... So which model should you buy? It depends entirely on what you're planning to do with your Amiga.

If you're wanting to play games, do simple word processing, or teach yourself BASIC, then an A500 is perfectly adequate. The same goes if you're on a tight budget, or are buying your first ever computer without any clear idea of what you'll use it for. Why waste

money on expansion slots you'll probably never use? Perhaps you might buy some memory expansion one day, or even a second disk drive, but these will happily plug into an ordinary A500. In fact the money you'll save by buying an A500 will more than pay for that memory and disk drive.

On the other hand, are you interested in 'heavy duty' applications like animation, desk top publishing, video and sound digitizing, C programming? If you look at a software package and it says 'minimum of one megabyte required, hard disk recommended', think very carefully about what expansion hardware you'll need on your system. If you've already got a memory upgrade in the internal expansion slot and a hard disk in the external expansion slot, you could be in trouble if you want to add something else later.

What's more, a completely 'full' A500 will cost you more than an equally powerful A2000. Disk drives, hard disks, and memory expansion are usually cheaper for an A2000 than an A500. This is partly because external A500 expansion naturally needs boxes and cabling, to protect you and your Amiga from electrical damage. For internal expansion, the larger size of A2000 boards allows use of standard (ie: cheaper) components. Some A500 internal expansion boards are marvels of miniaturisation, but such clever design often means higher development and manufacturing costs. And some types of expansion are difficult or impossible to find for an A500. Very few companies offer 68020 or 68030 co-processor boards, and I haven't seen anyone selling an A500 equivalent of the Flicker Fixer, for example. (ICD have just released such a device - See review in this issue.)

After reading the above, you may feel more informed but still worried about making the wrong choice. Don't lose too much sleep over it. If you buy an A500 and later discover an A2000 was what you really needed, upgrading is easy if not cheap. Second-hand A500 systems are currently selling very readily at between two thirds and three quarters of their new price. Sure, you lose a few hundred dollars, but at least you're not stuck with a machine you can't use and can't sell. (Hands up everyone out there with a worthless 8-bit computer gathering cobwebs in the wardrobe.)

On the other hand, if you buy an A2000 and later realise that an A500 was all you needed, smile through clenched teeth and don't tell anyone. The sale price of your A2000 is unlikely to leave you with much spare change from the purchase price of a new A500 system.

Upgrading - My Experiences

I was one of those A500 users starting to run out of expansion space. One megabyte wasn't enough to run my planned three-hour **Deluxe Paint III** animations. And the twenty megabytes on my A590 was filling up more quickly than expected.

I was vaguely considering a two megabyte RAM upgrade for the empty sockets in the A590, but knew it was only a stop-gap solution.

But then, at a computer exhibition, I happened to see an A2000 with a Flicker Fixer and a VGA monitor. Wow! Now I knew why the interlace graphics mode was put on the Amiga. The quality and clarity of the 640x480 screen was astonishing. I'll talk about the Flicker Fixer later, but basically it gives you a beautiful steady interlace screen instead of the horrible flickery interlace screen you get on a standard Amiga and monitor. Because I spend long hours at the Amiga, (writing articles like this one), a rock steady interlace screen means improved productivity. Twice the number of horizontal screen lines means twice as many lines of text on screen for example.

I was hooked.

After saving furiously for a few months, I sold the A500 and ordered an A2000 with Flicker Fixer and multisync monitor. Note that I said 'ordered', not 'purchased'. To my innocent surprise, the dealer didn't have half a dozen A2000s sitting in the back office waiting to be sold. Unlike A500s, which can be and are prepackaged in cartons all ready for customers to take away, A2000s come in many different options. It's unlikely that your dealer will have all the bits in stock for the particular configuration you require. Expect a wait of around five business days, particularly if you want any unusual boards.

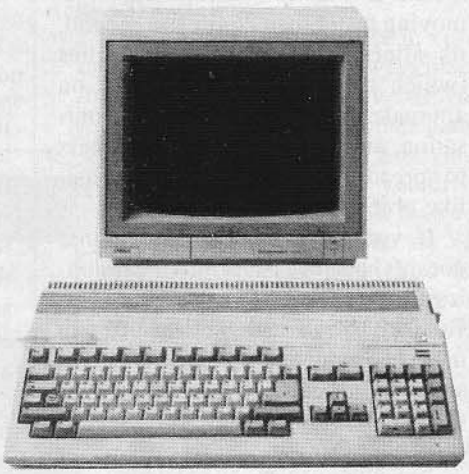
A whole week without an Amiga! It was a traumatic and frightening experience and the withdrawal symptoms nearly killed me. But eventually my new system arrived, and after a brief fight with a defective keyboard, it was all connected and running.

Installing software on the hard disk was predictably painful, but no worse than for any other hard disk. The only unexpected catch was discovering that the hard disk was split into a small partition called DH0: and a very large Fast File System (FFS) partition called FS0:. This confused a few install programs which valiantly tried to put everything onto DH0: and naturally ran out of space.

This particular hard disk partitioning structure is due to the A2090A Hard Disk Controller, which needs to boot from a non-FFS partition. When the new A2091 replaces the A2090A in new A2000s, the entire hard disk will be FFS, as is already the case with A590s and some other models.

Fixing Flicker

As you might guess from the name,



A500 - the baby

Flicker Fixer (also known as a Display Enhancer or Deinterlacer) is a board which gets rid of that horrible flickering in interlace graphics mode. It's a very popular upgrade for A2000 owners. Commodore like it so much they're importing it from America and selling it at almost cost price. That's right folks, Commodore will sell it to you at less than the American retail price. Gasp, shock, horror.

Why are they doing this?

Because the Flicker Fixer will certainly lead to increased A2000 sales, and quite rightly so. Before you rush out and buy one though, there are two minor catches which might adversely affect you.

Firstly, you can't connect your old 1084S monitor to Flicker Fixer, as it needs either a VGA or multisync monitor. You don't need to throw the 1084S away though; the normal Amiga video port is unaffected, so you can have two monitors attached (and even running simultaneously) if you want to.

The other catch is due to the way Flicker Fixer works internally. It refreshes every horizontal scan line on the monitor screen 50 times a second, thus giving a perfect steady picture, unlike the standard Amiga interlace video signal, which refreshes each alternate horizontal scan line every alternate cycle, ie: 25 times a second. However, Flicker Fixer is still only being fed the same data as the standard interlace signal, so it can still only change alternate horizontal scan lines on alternate cycles. Confused? All it means is that if a screen object is moving faster than 25 times a second, its alternate horizontal scan lines (which are only being changed on alternate cycles) go out of synchronisation, and the screen object appears to spread out slightly into two ghost-like objects.

If you're running software that doesn't have ultra-fast moving graphics then you won't even notice this. But if you're a arcade games buff, you may be immensely irritated at the sight of bullets and fast aliens suddenly ghosting strangely on screen.

Because arcade games all run in non-interlace mode anyway, the problem would be solved if you could still display the standard Amiga video signal when you wanted to play games, but use Flicker Fixer when you wanted to do 'serious' stuff. And with a little thought, this is quite easy to arrange.

I mentioned above that you can't use the 1084S monitor with standard Microway Flicker Fixer, although you can still use it with the standard video port. So if you already own a 1084S, just keep it when you buy Flicker Fixer and a VGA monitor. You can then run either monitor (or even both), depending on what software you want to run.

But if you don't already own a 1084S, it's rather expensive to buy one just for playing games. So instead, when you buy your Flicker Fixer, be sure to buy a multisync monitor rather than an ordinary VGA monitor. Multisync monitors can accept and display a variety of video signals, including both VGA (which Flicker Fixer produces) and analog RGB (which the standard Amiga video port produces).

You can plug the monitor cable into the standard video port when you want to play a game, and into the Flicker Fixer port when you want the interlace graphics (although note that you will need an adaptor cable to do this, as the two ports have different sorts of plugs). Apart from the minor nuisance of cable swapping, this is a simple and convenient solution, giving you the advantages of both graphic modes.

The Sound of Silence

There is one other surprise in store if you get a VGA or multisync monitor; because they're designed for boring old PCs, they don't have sound input sockets or speakers. Being used to the 1084S, it never occurred to me that my new monitor might have no sound facilities, and I was genuinely surprised when I couldn't find any audio plugs.

If you only use your A2000 for business purposes, this may not be a problem, as it's quite likely that your software won't use sound anyway. But if you do want sound, and you probably do, you'll need to connect your Amiga to some sort of sound system. Many music buffs keep their Amigas connected to their stereos all the time, even if they have 1084S monitors.

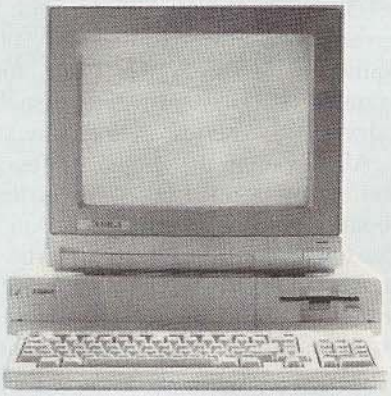
Alternatively, you can buy a cheap mini-amplifier and extension speakers, available in many electronics and stereo shops. Either way, you'll notice vastly improved sound, because the speakers are larger and better quality than monitor speakers. The stereo effect, barely noticeable on monitor speakers, also improves dramatically.

The choice is yours

Only you know what you will be using your Amiga for, so only you can decide which model and what expansion you should buy, both now and in the future. The most important thing is planning. Don't just wander into the nearest computer store and buy the first thing a salesperson shows you.

Think about what you want to do with your Amiga. Games, word processing, graphics, animation, financial accounting, music composition, sound digitizing, desktop publishing? All of the above? Discuss your plans with your dealer. If they can't or won't help you, go to a dealer who can and will.

Both the A500 and A2000 are great machines, but you'll save yourself money, time and heartache, by getting the model that's just right for you. ❑



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Compatible with A3000, System 2.0 and Digiview software

2Mb Chip RAM for A500

This kit brings the A500 up to A3000 standards with 2Mb of chip RAM. Installation requires the A500 to be opened up. Kit uses 4 of 1Mb x 4 DRAM (DIP) with a 3 position switch to access 1/2Mb chip, 1/2Mb Chip + 1/2 Mb fast or 2Mb chip RAM.
Installation not suitable for beginners

Kit without RAM & Agnus	**$119.00**
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Desktop Video For Beginners

Take your Amiga, a VCR and an RF - Modulator and you're ready to add title screens to your own videos. Throw in a few hundred dollars for a genlock and you can overlay Amiga graphics on your own videos! How's it all done? **Andrew Farrell *explains.***

Adding titles to your home video gives it that real professional look. Personal computers now offer this capability for a fraction of the cost of dedicated titling equipment, with the added benefit of numerous other video effects.

One of the most popular choices is the the Commodore Amiga. Unlike most computers, the Amiga is designed to work with video. The cost of hardware to allow combining Amiga graphics - in the form of titles or credits - with video is far less than most other machines.

A Genlock is the vital component which will determine the quality you achieve. It allows the computer generated image and source video signal to be correctly synchronised and mixed.

Genlocks come in many shapes and sizes. Less expensive models offer the very barest of functions; allowing computer generated titles to be overlayed on the your video with a simple fade and dissolve facility.

One such model is the RocGen RG310CP which retails for $399. It connects directly to the RGB video out port on the Amiga. Two RCA type plugs allow the video in and out to be connected. You can dissolve in and out the computer graphics, as well as fading in and out the source video. There's also a connector for future addition of a chromakey device. This will enable you to create weather map type effects, overlaying real people with computer graphics.

More exotic brands offer a host of additional features. For $2495 you can buy the VidTech Videomaster which handles S-VHS and composite formats as well as RGB. The unit also has an in-built RGB splitter which allows the computer with a separate digitiser, such as the $299 *Digiview Gold*, to capture still video images in full colour. Using additional software these digitised pictures can be manipulated in the most amazing ways. It is even possible to animate the captured graphics.

On the Videomaster's front panel there are separate slide controls to fade in the Amiga and source video. There is also a selection of four different wipes, including horizontal, vertical, circle and inverted. In performance tests, the VidTech unit was amongst the best around, and is currently in use by a number of professional installations.

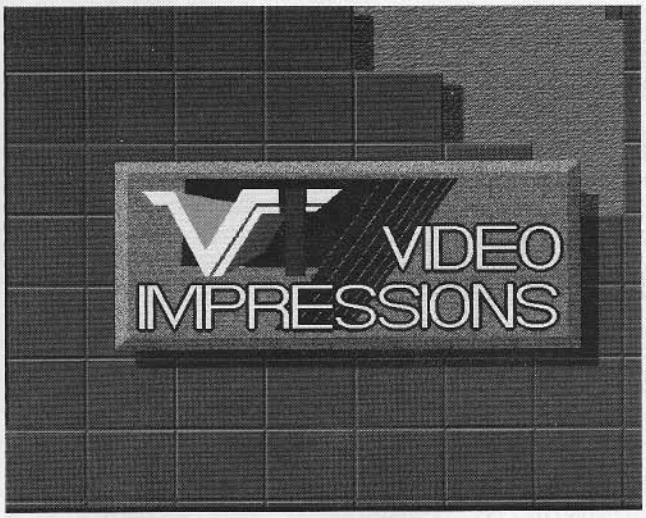
Video Resolution

Everyone talks about the resolution or number of picture elements a computer can generate as a measure of its usefulness in video applications. There is very little point in vastly exceeding the resolution of your chosen video format.

The Amiga will happily churn out up to 704 x 580 full overscan interlaced images - more than adequate for most video applications. Although the hardware permits only 16 colours in this mode, many paint programs are able to use HAM mode which offers 4096 colours in lower resolutions. With the addition of a video display enhancer for around $1000 (with rumours of a low cost version coming soon), you can display 16.7 million colours, making using of the full colour bandwidth of composite video. These enhancers are often referred to as 24 bit boards since they can display 2 to the power of 24 colours.

The Amiga has been responsible for graphics in commercials, television programs and corporate videos all over the world. It is a very capable machine when it comes to colour graphics, and has been used by the various television stations around

ShowMaker



Deluxe Paint - used for titling

Australia for generating titles, animated logos, and full screen animation.

In the United States, the Amiga stands unchallenged as king of the budget end video and animation world, particularly with the availability of the Newtek Video Toaster. This US$2495 device offers the kind of digital video effects, image processing and mixing, and video titling capabilities which were only previously available on equipment costing over ten times the price. Unfortunately the product has received such wide acclaim in the U.S. that the manufacturer is flat out keeping up with local orders. A PAL version of the Toaster could be some time off, in fact, it may never happen.

A spin off of this continuing success is the power and number of Amiga based video titling and animation packages is expanding quickly. Indeed, the range is now quite enormous. Many packages offer a vast number of wipes and transitions for graphics and titles. Programs range from the likes of *Deluxe Paint* at $99, to around $500 for *Scala*; a full blown video presentation system with dozens of backgrounds, fonts and useful art, 40 text and screen wipes and a very easy to use screen interface.

Possibilities

What might begin as a simple titling system can easily be expanded to handle the same sort of demands as high end production facilities. Extra disk storage and memory expand the capability of the Amiga to produce animations.

You can also speed up the machine with optional accelerator cards. These help make animations smoother and decrease rendering times of complex scenes.The greatest difficulty in purchasing the right equipment is finding a computer or video store able to demonstrate the capabilities of this equipment. ❑

Products mentioned in this story:

VidTech Videomaster
from: Color Computer Systems
(09) 349 6492

RocTec RocGen
from: Matrix
(02) 550 4688

Deluxe Paint
from: Electronic Arts
(075) 911 388

Scala and ***DigiView Gold***
from: Computermate
(02) 457 8388

ATonce-Plus
286-16 Mhz IBM-AT-Emulator
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Wordprocessing

Second only to playing games, wordprocessing is one of the most popular uses a home computer is put to. ANDREW FARRELL outlines the advantages of electronic word crunching and looks at some of the better choices available.

Once you've used a wordprocessor you will never turn back to the clunky old typewriter. Gone are the days of having to white-out mistakes, or waste near-perfect pages of typing. Apart from the ability to easily correct mistakes before they hit the page, a word processor also offers many extra features.

It's simple to move entire paragraphs from one place to another, replace every occurrence of a word with another more appropriate selection, have the computer check your spelling and grammar and provide you with synonyms for cliched adjectives you wish to dispense with.

Wordprocessors also offer trick functions, like sending one personalised letter to many different people, without having to retype the letter many times. You can even keep lists of information or create newsletter style documents complete with graphics and various styles of writing.

All this is possible with packages selling for under $300. An entry level wordprocessor at around $99 offers all of the important functions that make writing letters, reports, articles or entire books a breeze - providing you remember to save your work often!

What's WYSIWYG All About?

In recent years we have seen the introduction of so-called WYSIWYG wordprocessors. This term applied originally to desktop publishing software which provided designers with an on-screen representation of how a page would look. WYSIWYG stands for What You See Is What You Get. Well, most of the time this is true. WYSIWYG wordprocessors format your page to show you exactly how the finished output will look.

In the early days formatting codes had to be embedded in text using complex sequences of obscure key presses. Today wordprocessing is a far simpler process, with simple pull down menus and gadgets to alter formatting or carry out complex changes to a document.

The Amiga now has a very solid range of programs to choose from, all of which perform as well as many MS-DOS based wordprocessors. In fact, when compared to *Windows* based products, Amiga wordprocessors often out-perform even the most exotic *Windows* packages. However, there can be no disputing that WYSIWYG wordprocessing is a tad slower than simply bashing in chunks of text and worrying about the formatting latter, which is how this publication was produced. So, in choosing a wordprocessor to suit your needs, it's important to establish whether seeing your text formatted exactly as it will appear on the page is really that important.

If you have a 30,000 word book to prepare, pretty screen layout is of little consideration, whereas power features such as footnotes, grammar checking and thesaurus, powerful search and replace functions and the like may be more useful.

In the following guide, I've provided a rough overview of each wordprocessor's special features.

ProWrite - $299

New Horizons boasted of *ProWrite's* reliability since day one.

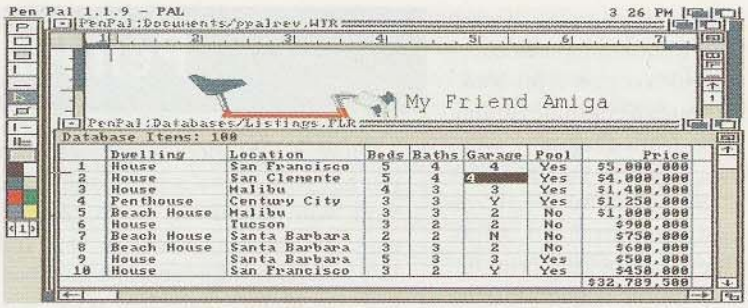
ProWrite

It was guaranteed bug free and I have never witnessed a *ProWrite* induced system seizure. New Horizons have continued to develop *ProWrite* to the latest release, version 3.2, which has a slick, clean, Workbench 2.0 look and a host of improvements. *ProWrite* uses the tried and tested drag-the-icon method of installation. A simple to use System Mover program is supplied for installing extra fonts and printer drivers supplied on the ProWrite Extras disk.

Multiple documents are handled with ease, each opening an additional window complete with sizing gadget and scroll bars. Setting screen resolutions must be done from Workbench using TOOL TYPES. A pleasant uncluttered layout with editing power considerably faster than earlier attempts at Amiga WYSIWYG wordprocessors.

ProWrite scrolls text several lines at a time, making the display jerky and awkward. However there are plenty of smart bells and whistles. You can sort paragraphs, turn text into upper, lower or mixed cases and apply or retain formats and styles. *ProWrite* can Load and Save ASCII files as well as their own proprietary format, roughly following the IFF standard. *ProWrite* is supposed to handle *Professional Page* files too, but tests we carried out found this to be too inconsistent to be of serious use. Excellent TAB support is included, with all kinds of justification provided for including decimal. Sophisticated column control provides up to five in total complete with adjustable gutter. It's these kind of features that start to sound like you could do some serious publishing - however if you plan on importing graphics, formatting becomes a nightmare. *ProWrite* has no support for any kind of text run around graphics.

A spell checker is available, although its a very American dictionary



	Dwelling	Location	Beds	Baths	Garage	Pool	Price
1	House	San Francisco	5	4	4	Yes	$5,000,000
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3	House	Malibu	4	3	3	Yes	$1,400,000
4	Penthouse	Century City	3	3	Y	Yes	$1,250,000
5	Beach House	Malibu	3	3	2	No	$1,000,000
6	House	Tucson	3	2	2	No	$900,000
7	Beach House	Santa Barbara	2	2	N	No	$750,000
8	Beach House	Santa Barbara	3	3	2	No	$600,000
9	House	Santa Barbara	5	3	3	Yes	$500,000
10	House	San Francisco	3	2	Y	Yes	$450,000
							$32,789,500

Pen Pal

AMOS TOME
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AMOS TOME requires AMOS v1.23 and at least 1 Mb of RAM

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AMOS

Déjà Vu AMOS add-ons

SPRITE X v1.33 This is a modified version of the original AMOS sprite editor, for 1Mb or greater. Versions for both AMOS 1.23 & AMOS 1.3 are included on the disk. Also on the disk is rem maker which allows design of fancy rem statements. *Disk: DV55 $8.00*

C-TEXT v1.32 C Text stands for colour text, and is an extension of the AMOS language which allows you to use icon based fonts, which can be drawn in up to 64 colours, can be displayed on the screen proportionally and with kerning if needed. Can also be editor with SPRITE X. *Disk: DV56 $8.00*

AMOS

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and not so intelligent guessing of what the correct word should have been. A thesaurus provides a powerful look-up facility so you can continue finding new synonyms from each new word list. *ProWrite* enables you to work back down the hierarchy. *ProWrite* offers a clean, well arranged output menu. Getting good looking print out of *ProWrite* requires a good quality printer.

ProWrite is a very reliable, slick product which benefits from a long history and a solid, carefully planned series of upgrades. The program performs flawlessly. A full AREXX interface along with the ability to work in columns is handy, although *ProWrite* could do with some enhancements in the areas of output and graphic handling. For more information regarding *ProWrite* call Computermate on (02) 457 8388.

QuickWrite - $99

No thrills wordprocessing - there are no fancy fonts, but there are styles - Bold, Italic or Underlined. And you can take advantage of your printer's built-in fonts from the print menu. This is a wordprocessor for processing words and not much else. When it comes to formatting your text, you have control of margins, headers, footers, title pages, different pitch and spacing settings. Using TABs is easy using an on-screen old ruler - you just place a marker wherever you want a TAB point to be.

Justification is achieved by highlighting text and clicking the appropriate gadget in the ruler or using a pull down menu or key short-cut! There are a few ways to do most things, not to mention a powerful AREXX port if you want to control *QuickWrite* from another application.

At any point in your document you can insert a page break, date, count, time or page number. The format of these items can be altered using another pop up menu. Trying to load a file type *QuickWrite* can't handle will result in a requestor telling you this is a bad file type - the program doesn't just GURU out on you like some other wordprocessors.

QuickWrite can save text in its own format, as ASCII or in *Professional Page* format (styled text is preceded by a code which will make it the same in *Professional Page*). You can also import ASCII with CR's after each paragraph or line and fix it up so you can edit the text as complete paragraphs. *QuickWrite* will also import *Professional Page* text and convert the codes into the correct text styles. Mouse control during editing is fast and intuitive. You can double click to select a word. A third click selects the sentence, whilst one more returns you to a normal cursor. ALT-double-click grabs a paragraph, ALT-scroll up or down moves up or down one screen respectively. Fast perusing of text is a snack.

For those involved with figures, there is decimal TAB support, helping you align columns of numbers without too much fiddling. There's also a 50,000 word spelling checker and you can add new words. The document information function provides critical facts such as the number of words, characters, paragraphs, lines, pages, average word and sentence length and a readability grade.

QuickWrite can open in a number of resolutions, or on Workbench. Full support for Workbench 2.0 is included along with additional features. The print menu handles multiple copies, collates and print back to front. There's a merge function to enable a list of names and addresses or any other information to be replaced into a standard letter. All you do is enclose the field names in your document in double angle brackets. At print time these fields are replaced with the entries in a separate data file. Now you're ready to start your own "Readers Digest" campaign.

QuickWrite is a solid wordprocessor which although lacking some of the fancy features other packages offer, beats them all on reliability. If you're looking for a good entry level wordprocessor which you may upgrade down the track, *QuickWrite* could be the answer. I was impressed by its

Pen Pal - $229.95

Once a very popular choice, *Pen Pal* has now grown a little long in the tooth with few if any improvements since its release. *Pen Pal* is a full WYSIWIG wordprocessor whose best features include excellent documentation and good graphics support, including the ability to draw within the program.

A smart mouse pointer indicates the function of each gadget on the screen as you move over it. Graphics may be imported and sized or cropped. Text can be made to flow around the graphic or run against it along a straight margin. HAM images may be used. Text can be different colours, and empty or filled boxes or lines of varying thickness can be created in documents. Most of the program environment may be controlled using a series of preferences menus.

Up to four documents can be opened at once. There is a 100,000 word dictionary. Word, sentence and character counts are available. Adjusting margins, text positioning, style and font type is all very simple to do. All types of justification are handled along with subscripts and superscripts. Page numbering and dating is supported and you can view the entire page prior to printing. Mail merge and reporting options are available too - along with a simple list manager for filing. *Pen Pal* seems to excel at reports - although it would have been nice to see some facility to produce various graphics from the list manager for inclusion in documents.

Missing from the list of features is a thesaurus and auto-save option. Also, the program insists on using its own in-built colour scheme when first run, although you can change this later. For more information call Dataflow on (02) 310 2020.

speed, ease of use, excellent documentation and clean screen layout. Certainly the best in its class. For more information call Computermate on (02) 457 8388.

Wordworth - $299

Inside the bookshelf box you'll find three disks, a 266 page ring-bound manual and quick-reference card. A function key guide on a sticker may be cut out and placed near the relevant keys. Installation is a snack. There are no external assigns to worry about.

On screen, *Wordworth* looks every bit like a true Workbench 2.0 application. System menus including pull down functions and requestors all sport some sort of fancy font. This help makes things more readable, however on occasion the menus seemed to become a little confused with some letters overlapping others.

Wordworth can be adjusted to correctly display WYSIWYG representations of both 60 and 80 DPI output. It will not properly handle laserjet as yet, although there is some support in this area. Full postscript support is included and works very well.

Editing speed is great as are the range of editing keys and functions. *Wordworth* actually supports the Home, End, PgUp and PgDn keys too. There are icons to handle such things as line spacing, justification, font and colour selection, margins and tabs. There is a very strong set of keyboard short-cuts. Many of the pull-down menus cause pop-up radio button menus to appear. A very pleasing interface which you can zoom around after just a few minutes exploration.

Extensive control over page formatting is offered including all margins, headers and footers. There is no footnote facility. Paragraphs can be formatted individually including justification, indentation, TABs, line spacing and space before and after a paragraph. Certainly a lot more fancy than most wordprocessors and even up there with some of the better desktop publishing programs. There is no support for multiple columns at the moment - this too is a planned addition in a coming release.

Wordworth supports standard Amiga typefaces as well as colour fonts for which you'll need the ColourFonts program included with *Deluxe Paint*. The main menu to select a font is a pop up requestor which shows the font name, drawer, point size and tracking (character spacing). You can enter any point size, however only Workbench 2.0 will guarantee a smooth rendition of the typeface - earlier versions are limited to those sizes available or chunky versions of scaled sizes. There is support for super and subscript.

When it comes to including IFF images, *Wordworth* scores very well. The place picture option will import any standard Amiga IFF graphic in any resolution or size from 2 to 64 colours, HAM or Extra-Half-Brite. HAM images are converted to 64 colour Extra-Half-Brite. The current palette can be altered to reflect the graphics palette (colours 4-16 of the current palette are adjusted to reflect the most used colours in the graphic), or the palette of the imported graphic can be adjusted to best match the current settings.

Text can be made to flow around the graphic to the left or right. If colour 0 is selected to be transparent you can also have contoured text flow around the image. You can resize the image using simple drag handles. Holding the shift key as you drag will maintain the correct aspect ratio. A double click on the image brings up a useful picture options menu much like any good desktop publishing program.

Apart from the standard NLQ or draft mode, graphic mode provides support for the Amiga fonts and graphics. *Wordworth* comes with special fonts to correctly represent the NLQ fonts on screen in true WYSIWYG form. There is also a special output mode known as Ultraprint. This effectively doubles or quadruples the screen resolution which is dumped to the printer in a graphic print mode. The catch is any font used must be available in either double or quadruple size to use this option. For example an 8 point Times font printed in Ultraprint High (double) would require Times 16 point to be available before the document could print. In Ultraprint Super (Quadruple) you would need Times 32 point. The result of this output mode is impressive, but the printing is considerably slower. Not a bad alternative to a similar feature provided by *Kindwords 2.0*.

NLQ and Amiga graphics may be mixed using a special two pass function. The output menu helps with all this by giving full control over the usual preference settings which affect printer output including the printer driver. Changes made in the program are reflected in preferences normal system configuration file.

Wordworth has a number of fea-

Continued on p20

Wordworth

More than

3,000,000

Amigas Worldwide!

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When Amiga Annual was released early last year, it was reported that 2 million Amigas had been sold worldwide since its inception a few years before. It took just on 12 months for an additional one million.

Amiga has simply taken off!

This is good news, not just for Commodore. As a result of an ever expanding user base, more developers in both software and hardware see that Amiga is here to stay and therefore commit to provide better software and hardware to the benefit of Amiga and all users.

Amiga graphics and multitasking capabilities are just part of the reason for this growth. The real reason is that it is the easiest and most adaptable Computer around. Amiga has found its way into just about all areas of human applications, research, education, science, video, music, animation, business, desktop publishing, art etc etc. The list goes on.

Amiga has whetted our appetite for creative expression and it shows in numbers that are enviable to the competition.

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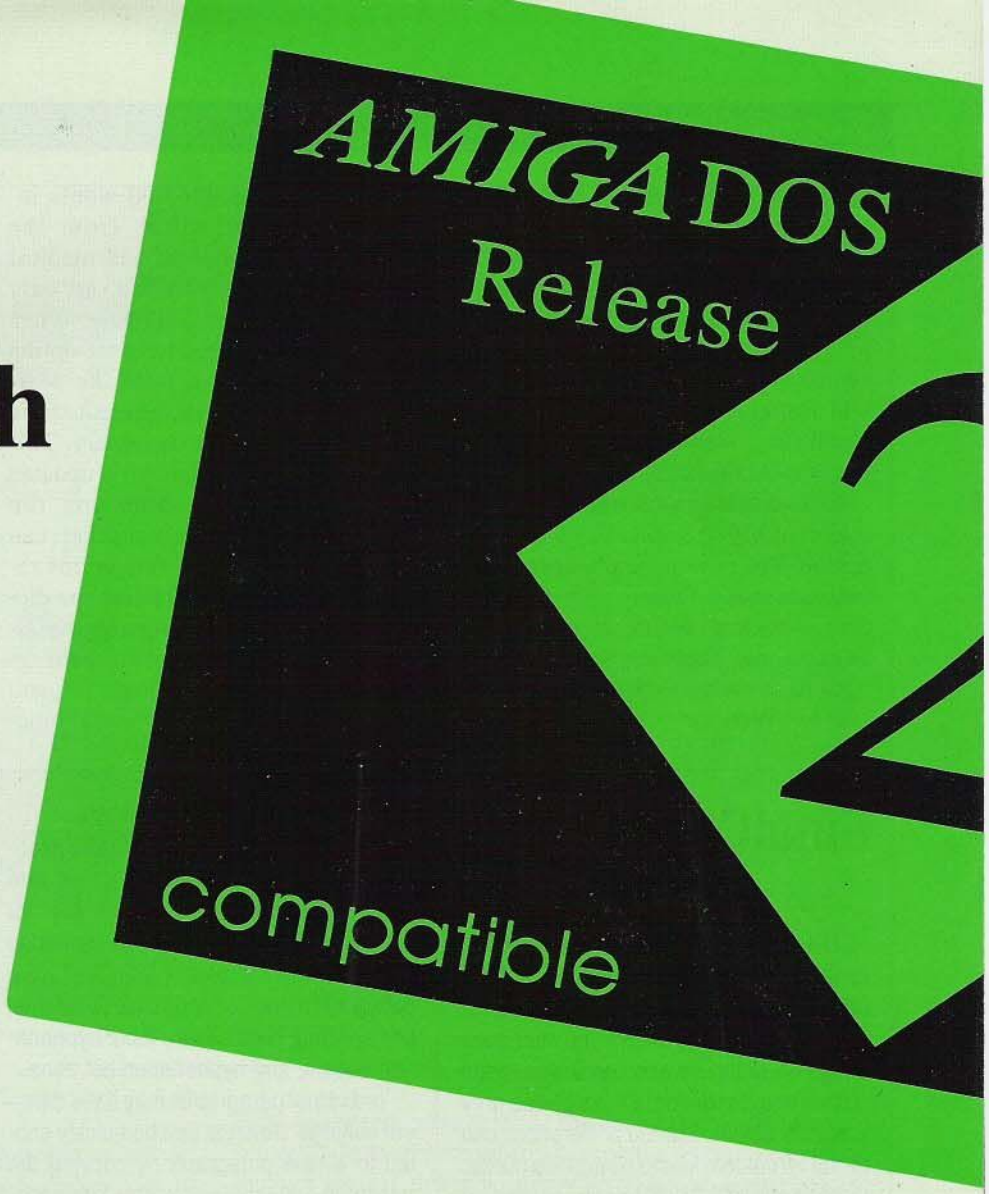

Part No. 590204-03 RRP $149.95

AS 214 V2.0 Enhancer Software and ROM

(Installation recommended by authorised service agent at additional cost)

This major upgrade is the result of intensive efforts by Commodore to bring the Amiga operating system to a new level of functionality. WB 2.0 offers profound improvements in stability and flexibility while retaining the combination of power and ease of use that are the hallmark of Amiga.

Demand for WB 2.0 will be very high as most Amiga owners, following in the WB 1.2 to WB 1.3 upgrade tradition, are now looking forward to WB 2.0. In Australia and NZ there are over 200,000 Amigas. Place your order now to avoid lengthy delays and enjoy the transformation of Amiga soon!

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Over 3,000,000 Amigas sold Worldwide

tures which overcome several long standing problems with these types of wordprocessors. If this is an upgrade you're probably first concerned with converting your old format files across to *Wordworth*. This is handled elegantly by the document format menu which offers compatibility with ASCII, *ProWrite, WordPerfect,* IFF Text (such as *Kindwords*) and *Protext*.

Occasional system crashes can be thwarted with *Wordworth's* auto-save option. You can set the amount of time between saves. The save function creates a backup before replacing the existing file enabling you to revert back to an earlier version of your file.

The William Collins spelling checker contains 116,000 words including 26,000 words from the Merriam-Webster legal and medical supplements. However, it's very easy to add words to the dictionary. When a word is queried you have the option to edit it, replace it from the near-match listing of words, ignore it or add the word to the user dictionary. This dictionary is automatically updated and reloaded each time you run *Wordworth*. The spell-checker can work as you type - although this requires a hard disk or copying the dictionary to RAM. Spelling suggestions are based on both phonetic spellings and common mis-spellings. I found the dictionary was a very useful function, especially once it contained my commonly used computer terms.

There is also a good thesaurus and document analysis. You can also create a glossary of commonly used terms or phrases which are then quickly accessible from a pop up menu. *Wordworth* handles hyphenation quite well. It even has a smart speech option to read portions of text or read as you type.

Overall, *Wordworth* is a functional well thought out package that will no doubt become the standard by which others are judged. The documentation is of a very high standard. For more information contact Pactronics on (02) 748 4700.

FinalCopy - $299

Using the new Commodore produced installation program, getting *FinalCopy* up and running is a breeze. The program preference settings allows you alter such things as units, screen resolution, page guides and displaying IFF images as grey scales or colour. Startup preferences can be set for custom, custom interlace (flicker fixer required), Workbench or ask at startup. The speller and hyphenation preferences allow more memory to be assigned to these functions. If you have enough RAM this will increase the speed of operation of these functions.

The page size is defined and then the print area. The Edit area with its top, bottom, left and right margins are then specified. Up to six columns and the gap between them may also be set. All preference settings may be used or saved as defaults.

Editing speed is good considering that outline fonts are being used. Once a page has been scrolled through, further scrolling of that page is considerably faster. There are keyboard shortcuts for most menu selections and for quickly moving around the document. A full Arexx port is included. Macros for use in the program may be written in Arexx and called from the macro menu. It is quick to work on a document since it may be viewed and edited at sizes from 25% to 400%.

Control over page format includes headers, footers, margins, title page and number of columns. Footnotes are not supported. Paragraphs may be formatted using icons in the ruler or from the layout paragraph menu. Settings include indents, line spacing, justification, tabs, hyphenation enable, and hyphenation hot zone.

Individual paragraphs may have different settings. Settings can be quickly copied to a new paragraph by copying the ruler from a suitable paragraph. Line spacing includes single, 1 1/2, double and variable. The hyphenation hot zone controls from where along a line the program will attempt to hyphenate a word.

Text and fonts are where *FinalCopy* really shines. Included are 29 postscript outline fonts found on most laser printers and four default outline fonts. These fonts are the Nimbus Q font technology from "The Company". Standard sizes range from 8 to 72 point but other sizes from 4 to 200 point in one point steps may be used. Leading or line spacing may be defined if the variable option was selected for the paragraph. Text styles available are normal, underline, strike through and double underline. Text position may be normal, superscript or subscript. Text width may be varied from 50 to 150% from the menu or another value may be keyed in.

An interesting feature is the text case menu option where three options are available. Normally the text is as typed. With Small Caps on, all the letters are capitals and the height is the same as lower case letters.

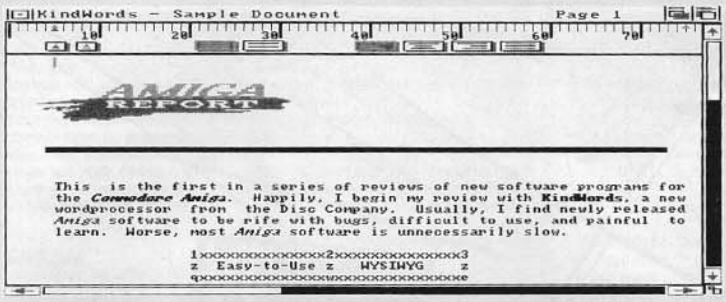
The insertion of IFF ILBM graphics is another of *FinalCopy's* strong areas. IFF graphics in HAM, Extra Halfbrite and ILBM in up to 8 bit planes are supported. Text may be flowed around the left or right hand side of a graphic if its background is set to transparent and it is not a HAM

FinalCopy

Kindwords - $99

Kindwords is a fine middle of the road package. It has one feature dot matrix owners will love. Print quality produced using *Kindwords* is good thanks to its own unique printer drivers. These far exceed the quality produced by the standard Workbench drivers. However, there is a small trade off in another related area. In this case, the number of available fonts is reduced and standard Amiga fonts cannot be used.

There's a full find and replace facility, 100,000 word Merriam/Webster spell checker, 470,000 synonym thesaurus and hyphenation control. You can include graphics in up to 16 colours. Once imported, an image can be cropped, sized and edited. Both low and medium resolution images may be used. High resolution images will import, however they are automatically reduced to medium resolution.



Kindwords

On screen editing is comprehensive. There are short cut keys for most menu options. A pop up menu with a condensed listing of every key function is available. Other features include page numbering, mail merge, superscripts and subscripts, and fonts for maths, Greek and symbols. Both disks in the package are unprotected, and the program installs on hard drives without any problem.

Overall *Kindwords 2.0* is excellent value, with plenty of punch for the average user. My only gripes are the lack of a word count function and the slightly clumsy selection of different devices when using the file requestor. On the down side, *Kindwords* has earned a reputation for being slightly buggy - in other words, it's not super reliable and I would not recommend it for serious work, especially long documents. For more information call Dataflow on (02) 310 2020.

image. Flow distance, the offset of the text from the graphic, may be set from 1/8" upwards.

The graphic frame may have no border or a border from a hair line up to 12 points wide. Graphics may be readily dragged around the document and forced to snap to the nearest 1/8" or move only vertical or horizontal. They may be quick sized up or down and snap to size. Constrained sizing where the original proportions are maintained or free sizing using the eight handles on the frame is available.

Cropping of graphics is another easily used option. The text automatically reflows around a graphic if it is moved or inserted after the text has been input. Graphics may be stored in the document or to reduce file size only the path to where the graphic is stored saved in the document.

With the incorporation of Outline Fonts and Postscript output the printed result is first quality. The print requester has buttons for Print Final and Print Draft, plus options for copies, page range and preferences. Preference settings include graphic, postscript, draft and settings. Settings defines Paper Feed type, Print Order (front to back or back to front), Collate (all, odd or even pages), Print Final to Graphics Printer, Postscript Printer or Postscript File.

Draft preferences defines the page length, margins, width, pitch, quality (draft or letter) and spacing used by the Draft Print button. Postscript preferences defines the port the printer is attached to, the shade grey scale or colour and the orientation of the output tall or wide. Graphic preferences include density settings, grey scale threshold, colour correction, dithering and shades black and white, grey scale or colour.

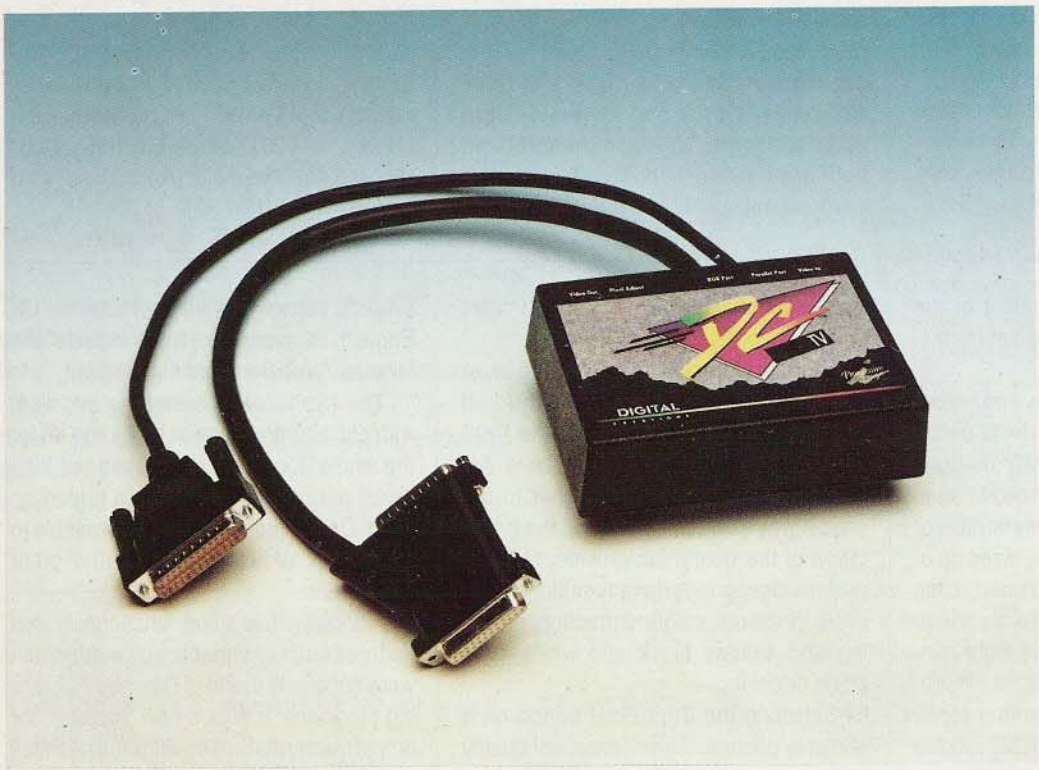
Selecting the Print Final button on a text only document gave excellent quality on the printed page. Quality of the printing was similar to that using the Outline fonts in *Pro Page 2.0* on the same printer. The graphic printer setup was an Epson LQ-500 at a density setting of 3 (180x180 DPI). A very pleasing feature of the printing was the speed, which is about 50% of the speed of the LQ-500 in letter quality mode. Compared to *FinalCopy, Pro Page, Kindwords* and graphic printing from other word processors is positively pedestrian.

FinalCopy contains the Proximity Technology Inc spelling checker, thesaurus and hyphenation system. The version I reviewed had the Merriam-Webster US English version although a Collins UK English is available. Both include the Merriam-Webster legal supplement.

The hyphenation system is excellent with good control. It must be turned on for the whole document to be used but individual paragraphs may have it turned on or off. Document statistics are available to keep track of words, pages and other information.

FinalCopy has good functionality and features such as variable text width which were once only found in Desktop Publishing programs. It sets a new standard for output quality and speed with Outline Fonts and Postscript support. Multiple column support combined with easy graphics manipulation and automatic text flow around if the graphic is moved or another inserted is especially handy. The Outline Fonts overcome the old WYSIWYG problems of having to fiddle with font sizes and line spacing to correctly fill a page. A clear easy to understand manual and good spell checker and thesaurus are further plus points. *FinalCopy* will give the top end Amiga word processing programs a hurry up to stay ahead of it. *FinalCopy* is available through Computer Spot stores in Sydney.

Television Quality Graphics



If you fancy yourself toying with television quality graphics, DCTV is the most affordable solution. With the ability to animate 16.7 million colour graphics in real time, it's also about one tenth the cost of alternative systems.
Andrew Farrell *road-tested the PAL unit now shipping in Australia.*

Amiga in the United States means video. As a result, most of the truly innovative video products for the machine have originated in the States. Over there they use the NTSC standard for broadcasting television. In Australia we use PAL, a superior system which is also used by the UK, parts of Europe and South America. The down side of this is we have to wait for American companies to convert hardware over to the PAL standard before it is of any use to us.

After a long wait, DCTV is now shipping in PAL form. At around $1200 at the initial release, it was certainly a lot more expensive than the NTSC version. However, street prices are now hitting as low as $999.

DCTV is one of the most exciting add-ons for the Amiga for some time. Until now there has been no way of playing 24-bit animations. Normally, you would have to record each frame at a time to an expensive professional VCR. Combined with the right control equipment, producing such animation would require the purchase of around $10,000 of extra equipment on top of your Amiga. With DCTV, any VCR can be used to record the output. DCTV is also a powerful 16.7 million colour paint box and digitiser.

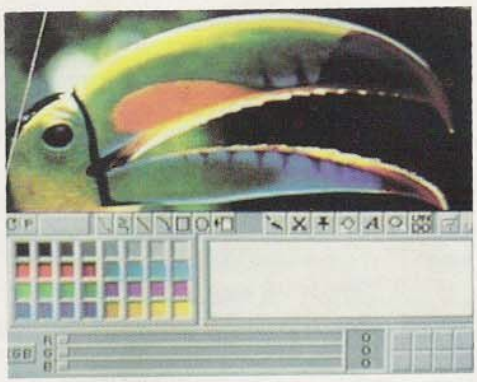
Installation

I have been in the habit of connecting and disconnecting things from my Amiga for some time. When I plugged in DCTV, it didn't work. The problem was I had damaged my video port which provides the necessary power to the DCTV unit.

There are three power lines present on this port, and shorting them out can blow a tiny solid state fuse which is soldered to the Amiga's PCB. A quick trip up to Sibnet, a Sydney Commcare Centre, and all was fixed.

Once DCTV powered up, I connected a standard 1084S to the composite output and a Canon still video camera to the composite input. The next step is adjust a small knob on the back of DCTV until one of the demonstration images included with the software displays clearly on your composite monitor. Every monitor is different and must be individually adjusted. Once you've got it right, DCTV functions reliably and we experienced no other problems getting it working.

The manual is well designed, and



quite easy to follow, however some of the paint software's more powerful features are skipped over too quickly, leaving some things to be discovered by experimenting with what brief mention is made.

Before too long I was up and running, digitising images from the Canon and distorting them all sorts of ways using the paint software. The images look just like a still frame from your VCR - slightly blurry, television quality, with lots of colours - which all look slightly flat. Don't expect to see the same crisp, vibrant output that an RGB 24-bit display device provides. DCTV is completely differently to these devices. It is this difference that gives it the animation advantage.

What is DCTV Anyway?

You might call DCTV a trick of sorts. It's not real 24-bit, however, it's as 24-bit as you'll probably ever need. The number of output colours is achieved using normal Amiga display modes. However, the way the information is interpreted by the DCTV unit is where things start taking shape.

For a start, there's a small chunk of information at the top left of any DCTV image which is vital to the image being displayed correctly. Because DCTV images are stored as IFF files, any program can load them and display them providing the image is correctly positioned on the screen so that the chunk is in the right spot.

The actual bitmap is also different to a normal image. On your RGB monitor the screen looks like a big mess, with

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only a vague looking image visible. However, through the DCTV's composite output, the full potential of the composite colour display is visible.

Composite video combines both colour and picture information in the same signal, so the result is never as crisp as RGB. However, since television is essentially a composite signal, the results look almost the same once recorded to video and played back through a television.

For the technically minded, DCTV uses special compression techniques to compact the video data and then decompress it on the fly during display. The flexibility of this system is that you can play full television quality animation back as fast as a normal Amiga animation in the same resolution. On an accelerated Amiga the results are very impressive.

Paint Software

Although not right up there with *Deluxe Paint*, the DCTV paint software is of a very high standard. Air brushing in 24-bit is a whole new experience - for a change the results look like real air brush effects. The software is arranged like *DigiPaint*, with a panel of gadgets on a separate screen which is normally located at the base of painting. A row of buttons across the top of the panel activate different painting tools including Paint, Area Fill, Text, Scissor, Paste, Magnify, various lines, Squares, Circles, Draw Fill, Stencil Activate, Make Stencil, Swap Page, Quick Save and Load and a screen to back gadget.

Working with colours is very simple. You can easily adjust an existing colour well, or mix colours in the mixing area using any of the normal paint tools. Although brushes can only be saved in a proprietary format, they can be manipulated in many ways. A brush can be rotated any number of degrees, flipped, sheared, sized and bent. The shadow gadget creates a shadow with variable distance and angle from the clip, and an adjustable degree of opacity.

Paint modes include normal solid painting, effected only by the flow setting; tint, which changes the chrominance portion of underlying graphics; shade, which changes the luminance part of the colour; airbrush and water-colour, which gives works with a finite amount of paint with each stroke or mix existing colours.

A whole range of fills are available including gradient, pattern and wrap. Gradients can be border, horizontal, vertical, linear, radial, remap, spiral or 4-point. Patterns may be tiled, brick, wallpaper or mirror tiled. A wrap may be horizontal, vertical or from a point.

The stencil facility allows you to build up a stencil using the normal paint tools and to select a range of colours to include, with a degree of nearness. Once you've created a stencil it can be saved, inverted and edited with ease. You can also blend, smooth, rub thru to the background image and filter (for legal composite colour).

Overall, the paint software is amongst the more powerful contenders. The variable magnify option is excellent and overall speed is very good. The software is let down only by the manual which lacks clear examples and brushes over powerful features way too quickly.

Digitise

Capturing images from a still video source proved to be one of DCTV's strengths. Apart from scanning in colour photographs using a flat-bed scanner, DCTV sourced images are amongst the best quality I have seen on the Amiga. Like most, the software to capture images is very simple. The scan takes from six to 10 seconds - the speed is adjustable to fit in best with the device you're using for input.

Once you have the picture in memory, there are some simple image processing capabilities, although this is an area where DCTV is lacking slightly. Another problem we had was that although you can save the image as a 24-bit IFF, there is no way to save a grey scale picture as an 8-bit image. Considering DCTV with a Canon still video camera produces ideal black and white images when desktop published it would be nice not to have to continually convert back and forwards between both formats.

Conclusions

Many programs support DCTV including *VistaPro, AdPro 2.0, Imagine* and more are on the way. Considering DCTV images can be so easily used in other programs and that you can play 24-bit animations easily, DCTV is a must have for animation and presentation graphics use. As a paint box it is a well rounded package which could do with a few bells and whistles. As it stands, DCTV is good value for money. The quality is not RGB, but then neither is the average television.

We are still running more tests on the unit, and we're hoping it will stand up to professional use for video production. A composite to RGB adaptor is in the pipeline, this will allow DCTV images to be genlocked over video. When that arrives, DCTV will certainly be a real bonus for video titling. It would be great to see a digital video effects unit which takes advantage of the DCTV display format. Otherwise, a very worthwhile device for all sorts of uses.

For more information contact Power Peripherals on (03) 532 8553 or Colour Computer Systems on (09) 349 6492.

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Alter Audio: *Making Music with MIDI*

by Stan Nirenburg

If you're thinking of making the leap into the world of MIDI music, here's a first hand review of Commodore's own package solution.

I had been thinking about playing a musical instrument for some time. Just before Christmas I purchased a new Yamaha keyboard which, amongst other things, features MIDI capability. I had previously played the piano, but my new electronic keyboard opened up new possibilities with some 100 built in instrument sounds.

But how to tap this wonderful facility?

Luckily, the Amiga coupled with suitable hardware and software, can be used to bring musical keyboards alive. The equipment I am talking about is a package from Commodore called Alter Audio.

The Alter Audio Package

Alter Audio provides all the necessary bits to enable a musical keyboard to be connected to and controlled by the Amiga. The package comprises a MIDI interface, connecting cables and software, and sells for a recommended retail price of $249. Shopping around for a better price is, as always, highly recommended.

The package is aimed very much at the novice home musician. Inside a rather large briefcase style box (with built in plastic carry handle) is a cardboard box which contains the MIDI interface, two MIDI cables and a very comprehensive manual. There is also a neat folder in the briefcase which opens up to reveal four disks (one disk holds the MIDI software and there are a further three disks full of sampled instrument sounds), a manual and an audio cassette.

The audio cassette takes the first time user through the steps required to produce your very own music.

MIDI Interface Hardware

The MIDI interface itself is a very small box (15mm high, 40mm wide and 100mm deep) that plugs into the Amiga's serial port (the same one that is normally used for the modem). There are two screws at the back of the interface to secure the unit to the Amiga.

For the technically minded, the MIDI interface has one IN port, two OUT ports and a switchable OUT/THRU port. In addition, a serial pass through is also provided to enable a modem to be connected to the Amiga without having to disconnect the MIDI interface - very convenient. There are two switches on top of the unit; one is used to choose between the serial passthrough and MIDI function, whilst the other switch is used to select the THRU MIDI connector if required. The THRU MIDI facility is useful if you want one instrument to control another.

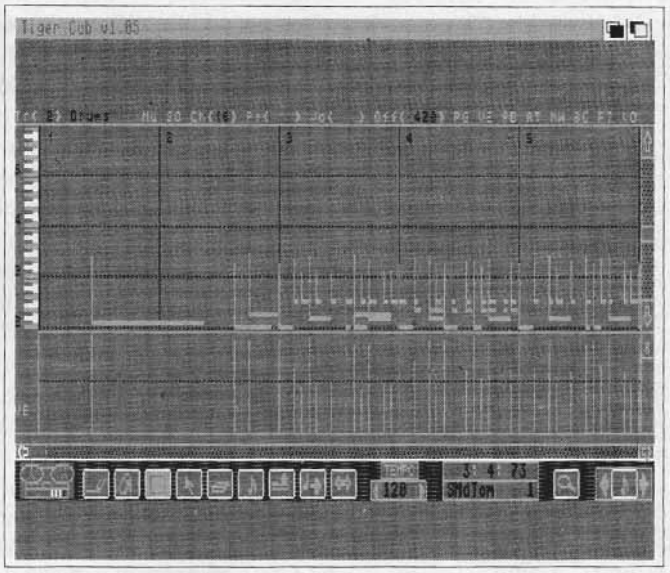
After attaching the MIDI Interface to the Amiga, the next step is to connect the musical keyboard using the supplied cables. The accompanying manual describes a number of possible computer/instrument configurations and explains how to go about connecting everything together. Finally, power on both the musical keyboard and computer and you can experiment with the supplied software.

Software

The software supplied with Alter Audio is *Dr T's Tiger Cub. Tiger Cub* is a slightly ageing twelve track sequencing program aimed at the less experienced user. This means that it is not as powerful (or flash) as some of the more modern offerings such as *Bars and Pipes Professional* or *Dr T's KCS 3.5*, however, it is a fraction of the price, it is easier to use. Despite its age it still boasts some amazing facilities.

What can sequencing software do for you? In a nutshell, a sequencer allows you to record and play back musical performances using an electronic keyboard - a bit like a computer multitrack tape recorder. Unlike a tape recorder, the sequencing software allows you to edit each note individually and also provides fine control over every aspect of the music, including the volume of each note played and the type of sound or voice that is used to produce that note.

In addition, *Tiger Cub* is versatile enough to allow you to use the Amiga's internal sound chip to produce music



Tiger Cub v.1.05

without the use of a musical keyboard. And to help in this regard, the Alter Audio package boasts two full disks of musical instrument sound samples.

The first thing that strikes you when *Tiger Cub* starts is the awful screen colours. Fortunately, these can be changed quite easily to suit individual preferences and stored for later use. In fact, a number of options affecting the operation of the program and its control of the MIDI interface can be set and stored in a special default startup file. So the next time *Tiger Cub* is used, it will default to your preferred settings.

In addition, *Tiger Cub* allows you to set up a list of drum machine effects, instrument sounds used by your musical keyboard and an index of instrument samples for use by the Amiga's internal sound chip. This is useful in that it allows you to change instrument types by looking up these lists rather than having to remember code numbers.

When *Tiger Cub* is loaded, you are presented with the Tape Recorder Screen. The top half of the screen shows the twelve tracks that can be used to record and play back music. The track display shows information about the musical keyboard that is currently being used, the instrument sound and MIDI channel assigned to each track, and the status of each track (whether it is playing or silent).

The lower half of the screen is called the Control Panel and looks very much like the control buttons that might be found on any domestic tape recorder. There is a status display to show the length of the recording in minutes and seconds, and in beats.A slider switch allows you to set the tempo of your music. This last feature is particularly useful, as it allows you to record your music at a very slow tempo (if, like me, you are not very good at playing the keyboard) and to play it back later at the right tempo. Coupled with the audible metronome and count-in feature, recording music is very easy.

Another useful aid is the "Quantizing" facility. This auto-corrects all notes played on the keyboard to correspond to the tempo set at the beginning of the recording session. This allows a sloppy keyboard player like myself to create music that is rhythmically correct.

After recording one or more tracks, the music can be edited in the Graphic Editing Display. This screen has a status bar along the top and a representation of a piano keyboard on the

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left hand side. The notes themselves are represented on the screen by horizontal bars with vertical tails at the front. The length of the horizontal bar represents the length of the note, its position corresponds to a note on the displayed piano keyboard and the tail indicates how loud the note will be played. This same screen can be used to draw musical notes manually using the mouse (one way of using the sequencer for internal Amiga sounds if you don't have an electronic keyboard) or music may be recorded by playing the notes on the on-screen keyboard display with the mouse.

Other tools provided allow you to change the position, duration or loudness of each note and the menu bar has editing facilities to cut, copy and paste notes as required. A zoom button is provided to allow you to magnify a portion of the chosen track for fine tuning your masterpiece.

Below the note editing window, you can open another window to allow editing of controllers. These controllers can be used to adjust volume, velocity (how hard a key is hit), pitch bend and whatever other exotic functions your keyboard is capable of. For example, to create a crescendo (music becoming gradually louder) you simply open a velocity controller window and draw a ramp with the mouse to indicate that the music is to be played gradually louder.

QuickScore

Bundled with *Tiger Cub* is an interesting utility called *QuickScore*. *QuickScore* is used to turn the graphical representation of music used in *Tiger Cub* into traditional music notation. Individual tracks or the whole score can be viewed from within *QuickScore* and may also be printed for use by members of a band, for example.

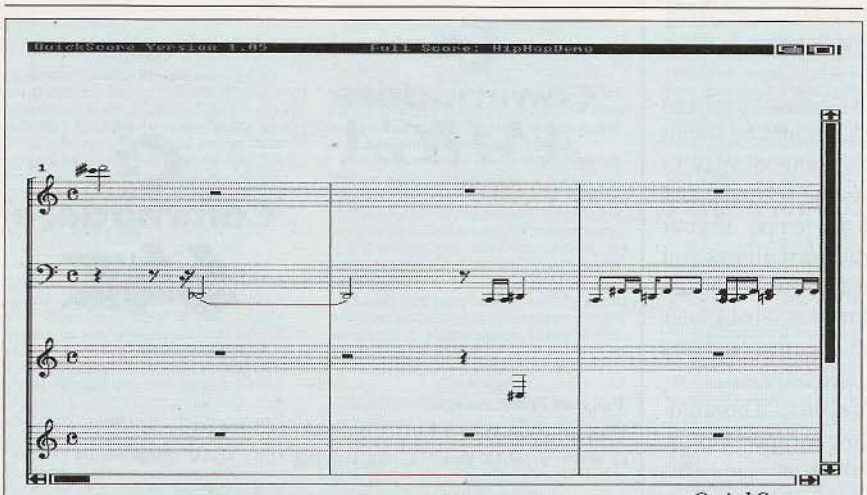
QuickScore cannot be used alone but must be used from within *Tiger Cub*, operating under its Multi Program Environment (MPE). This means that after *Tiger Cub* is started, you must move it into the background, double click on the QuickScore icon and return to *Tiger Cub*.

On the menu bar, there is a drop down MPE menu which allows you to go to either Workbench or *QuickScore*. It is then a simple matter of switching between the two programs.

The Multi Program Environment is a versatile feature. It allows other Dr T's utilities, such as track mixers and editor/librarians, to be attached to *Tiger Cub* to form a complete music workstation and to share common information without having to start and stop various programs and to save and load numerous files. This feature allows you to expand your MIDI setup if you want additional facilities in the future.

Using Alter Audio

I found Alter Audio extremely easy to set up and use, largely due to the excellent tutorial on tape that is provided with the package. In fact, I was able to create and play my very first



QuickScore

Glossary

MIDI - Stands for Musical Instrument Digital Interface. It is a standard that was developed by the music industry some years ago to allow electronic instruments, drum machines and sequencers to be connected together. MIDI allows musical information to be shared by a number of instruments and for these instruments to be controlled by sequencers and similar equipment.

MIDI Channel - The MIDI standard defines 16 channels on which musical data may be transferred between instruments. This allows a number of different sounds to be played simultaneously in a way similar to that of a multitrack tape recorder. The individual MIDI channels could be used to represent different sounds that might be found in a band (guitar, bass and drums for example).

MIDI Interface - The hardware that is plugged into the serial port of a computer to allow the computer to talk to electronic musical instruments.

Synthesizer - An electronic musical keyboard that can simulate different sounds. Although professional synths can cost many thousands of dollars, consumer keyboards can be purchased for as little as $100. However, to use the keyboard with a computer sequencer requires that the keyboard have MIDI built in. The synthesizer should be multitimbral (see below).

Multitimbral - This means that the musical instrument is capable of simultaneously playing more than one sound. This is necessary to produce the effect of a number of instruments playing simultaneously from the one keyboard.

Polyphonic - The musical instrument is capable of playing more than one note at a time.

Sequencer - A software package that allows you to record and play back music through an electronic musical keyboard. It controls all aspects of the attached instrument and provides extensive editing facilities.

Event - A piece of transmitted MIDI information such as the playing or releasing of notes.

Control Change - Information about how the music is to be played, eg, pitch bending or velocity.

Program Change - Command to the musical instrument to change its sound source, eg, from piano to guitar.

Velocity - Defines how hard the instrument key is to be played.

Fact File

Product:	Alter Audio
Category:	Music/MIDI
Publisher:	The Disk Company
Distributor:	Commodore
RRP:	$249
Contents:	4 Disks, Audio Cassette, MIDI Interface, 2 MIDI Cables, Hardware Manual, 120 Page Software Manual
Requirements:	1 Mbyte Ram Minimum Hard Disk Installable Not Copy Protected, Electronic Keyboard

piece of music with little reference to the manuals.

To connect the hardware, I followed the instruction in the manual. Essentially, all that is required is to plug the MIDI interface into the Amiga's serial port, connect the MIDI cables between the interface and the electronic keyboard, set the switches on the interface and turn the power on.

The tutorial tape is a great idea - having someone teach you is probably the best way to learn. The tutorial is a step by step guide to the complete process of recording a piece of music. The instructions on the tape are generally very clear, no jargon is used and the voice on the tape will tell you when to stop the tape and read the manual for further information and when to record music. Along the way, the tutorial covered many of the features of the *Tiger Cub* program.

I should mention that on two or three occasions I misunderstood the instructions. However, after replaying that segment of tape or reading part of the manual, everything became clear.

I did read the manual eventually (doesn't every one read the manual after trying the program first?). It has been designed with the MIDI novice in mind. After describing what MIDI is and what sequencers are, the manual launches into a tutorial (not as good as the one on the tape). Two further chapters cover use of the Tape Recorder Screen and Graphic Editing Screen. A whole chapter is devoted to music editing (I guess this is one of the main benefits of using a sequencing program over a multitrack tape recorder). A few more chapters cover the *QuickScore* module and other miscellaneous features of *Tiger Cub*.

Summary

Alter Audio is a fun, educational package well suited to the Amiga user who is interested in music. The package comes with absolutely everything that is needed to create music (except for the computer and electronic instrument); I created my first piece of music within two hours of the package arriving. And the best part is that at $249, it is good value.

The inclusion of a tutorial tape in Alter Audio was a great innovation. It allows even the first time user (like myself) to start creating music in no time at all and certainly did away with any hassles that one often encounters with new and unfamiliar products.The software is sophisticated enough to allow you to use it for a number of years as your own skills develop.

I highly recommend Alter Audio to anyone who wants to learn about music and MIDI, for anyone who wants to compose and create music, for the band on a budget or simply for having musical fun at home.

Comments

An excellent package, particularly for the beginner as the manuals are comprehensive, comes with a good audio tape tutorial and the sequencing software is easy to use but powerful. A fun and educational product that is highly recommended. ❑

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What to do about Computer Viruses
Fact or fiction?

How do you catch one, where do they live and how do you get rid of them?
Andrew Leniart *explains what to do about the threat of viral infection.*

The mere thought of a virus pumps fear into many new Amiga users. Others are convinced they have nothing to worry about, because a computer can't catch a cold.

True enough, but don't fall into the trap of thinking that your machine cannot catch a computer virus.

On the other side of the coin, don't become over paranoid about it either. Like most things in life, once you have an understanding of what these things are all about, you learn to live with it.

A computer virus is nothing more than a piece of cleverly written software, that copies itself to other disks without any special effort needed on your part to help the process along. That's all they are, period.

This ability of a virus program to replicate can be annoying, however the most infuriating part is when a virus program actually damages important information or one of your programs.

The most common type of virus around is the boot-block virus. It is called such because they are written to the boot sector of your bootable disks. Any disk that will start the Amiga when inserted at the Workbench hand prompt is a bootable disk.

The other type of virus which is fast becoming more commonplace is called a file or link virus (otherwise known as trojans). These are designed to copy themselves onto an existing executable file on your disks.

File type viruses spread in various ways, but all require that you run the program to which they are attached before they can spread. While not as common as the boot block type, they are often harder to track down and destroy.

A disk which is infected with a boot-block virus needs to be booted before it can do any damage to your software. Once the disk is booted, the virus program copies itself from the infected disk's boot-block into the Amiga's memory where it sits, usually doing nothing at this stage except waiting for the next boot disk to be warm booted.

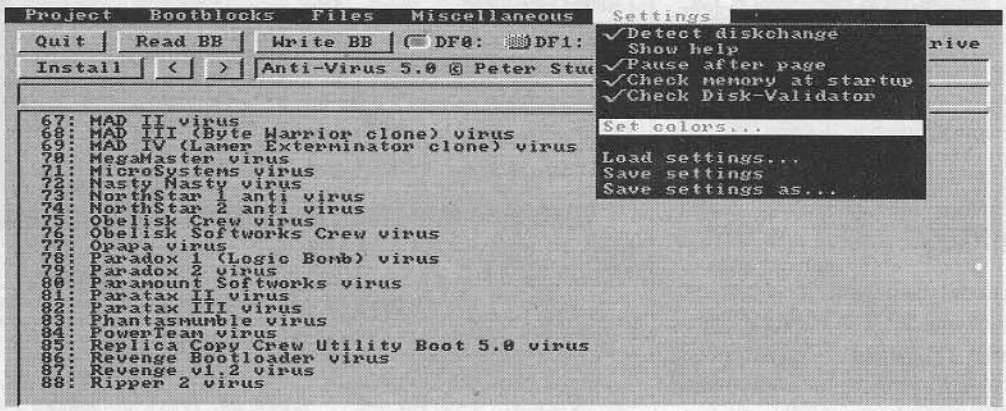
Once you warm boot another disk, the culprit goes into action and providing that the next disk you have just booted is write enabled, then it copies itself to the boot-block of that disk. This process will continue to happen, reboot after reboot until the virus is either removed by special software written for this purpose or the machine is powered off. Cold booting the Amiga will effectively remove the virus from memory thus ending the infecting process until an infected disk is again booted from. It would be easy to write a few pages on this topic alone, however I'll leave that to the experts.

The above is a broad and general explanation of what a computer virus is and how it spreads.

Destructive Potential

Boot-block viruses can destroy custom boot-blocks which many commercial game disks boot with. Software companies create special boot-blocks for various reasons, sometimes to enhance the start of a game, sometimes to just make it harder to copy the disk and (theoretically) prevent pirate copies of the software being made. Once a virus over-writes this custom boot-block, the game refuses to load and the disk becomes useless. If you're not using a backup of the disk and you paid big dollars for the game, then it's easy to see just how painful this can be.

Trojans on the other hand can be even nastier than that and are unfortunately easier to write. It's easier to make link type viruses nastier because virus programmers are not limited to the size of the boot sector of a disk in which to write their nasty code. Some trojans will corrupt whole disks full



Anti - Virus - public domain

of information and can make a whole hard drive full of software useless. Some lunatic even wrote a time bomb virus where it will sit on disk doing nothing until a certain date after which it will fly into action corrupting files all over the place.

I'm sure you'll now agree that it pays to look into this subject a little further and learn how to protect your investments. Fortunately, software writers around the globe are continually looking into this problem for us and are producing Anti-Virus software which makes protecting yourself relatively easy.

Anti-Virus

There are various pieces of software available for the Amiga written specifically to deal with these problems.

Three come to mind straight off. *VirusX* is an American effort that is public domain has been around as long as I can remember. However I personally prefer to use two Australian efforts. They go by the name of *ZeroVirus*, written by Jonathon Potter, and *NoVirus* by Nic Wilson.

Both are freely available through the public domain libraries and both have the ability to detect and destroy virus programs from your disks and computer memory if infected. Another excellent program originating from Europe is called *BootX*.

You can get more information on these programs by writing to Prime Artifax or Megadisc - both of whom advertise in *The Australian Commodore and Amiga Review*. Alternatively, check with your local Amiga User group.

More detailed explanations of this topic can be obtained from the documentations that accompany the programs.

Some Virus Facts

Here are some facts to defeat a few of the more common myths that float around about viruses and what they can and can't do.

1. It is impossible for a computer virus to harm your hardware. The only one that I know of that even comes close to doing this is a file virus by the name of *Floppy Music*. This culprit plays funny business with your disk drive heads when it is run. Easy to detect and if stopped quickly enough, no harm is done.

2. It is impossible for a virus to remain in computer memory once you have turned the power to the machine off for at least 10 seconds. Some people may try and tell you that a virus can copy itself into the RAM built into the real time clock & memory expansion unit (A501) available for your Amiga and thus survive a cold boot. This is total and utter rubbish and should be dismissed as such.

3. I can't believe the amount of rubbish that one hears flying around that a disk drive can be forced to write to a disk even if its write-protect tab is set to open.

It is impossible for a virus to infect any disk if its write protect tab is set to open just as it is impossible to write any data to a write protected disk.

You will no doubt hear of other claims that these mysterious pieces of software can do. It is impossible to cover everything because as soon as one false theory is dismissed, some clown makes up another one and sits back laughing as the new inexperienced Amiga owner goes paranoid and believes it.

Stick to playing it safe by taking some precautionary measures like the ones listed below and don't worry about it. It's all part of the fun of home computing. If you always keep a backup of your important disks, then you have little to worry about.

Simple Steps To Protecting Yourself

• Check any new disks you get with a virus checking program. If you don't have one yet, then get one. You'll need it.

• Whenever possible, make a backup of disks you consider to contain valuable information and use the backup rather than the original. Always keep your originals write protected.

• If something out of the ordinary is happening when using a certain disk, power off after using it before booting up with another. Keep playing it safe with that disk until you can confirm that it is not infected.

• Always keep the original copies of your disks write protected.

Okay, so much for talk about viruses here. If you want more in depth information on this topic, write to the editor and tell him so. He'll soon tee up someone to do an article devoted to the subject in a future issue of *Australian Commodore and Amiga Review*. ❑

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Computing by Phone

By connecting your Amiga to a telephone line, a whole world of possibilities opens up. With help from a $400 modem you can communicate with other users around the world, exchange software, purchase products or research information. *Andrew Farrell* explains.

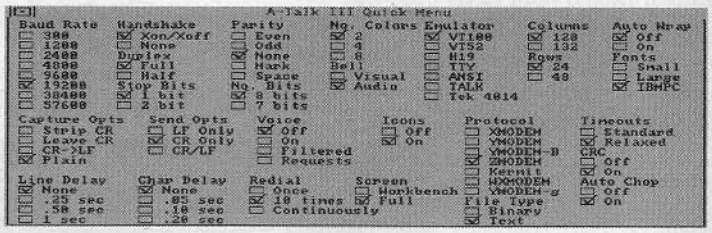
For the cost of a local telephone call, it's possible to access a wide range of privately operated computers. Here you can meet like minded Amiga people and exchange all types of files as well as gaining access to the international Amiga conferences containing a veritable wealth of advice. There are also many commercially operated information services and banking facilities which offer additional opportunities to travel the world from the comfort of your keyboard. However, these services can cost up to $36 an hour and should be used carefully.

The device you will need to buy to make this possible is a modem. Using a flat ribbon cable, the modem connects to your Amiga's RS-232 port at the back of your machine. Only a few wires are needed for bare minimum operation. One carries data from the Amiga to the modem, the next brings data from the modem to the computer and the third is a common ground. You can create your own cable if one is not shipped with the modem. Connect pins 2-2, 3-3 and 20-20.

Once the information from your computer reaches the modem, it is changed from digital information into sound which can be transmitted over the telephone line to a modem at the other end, where it is turned back into computer data. This process is called modulating and demodulating respectively - thus the name MODEM.

The modern modem is an semi-intelligent device with its own command set to alter the way it talks to the modem at the other end of the telephone wire. These commands can be sent directly to the modem through a simple terminal program. However, to make the task of communicating with other systems easier, most good communications software handles talking to the modem for you.

The top four programs available in Australia are *JR-Comm, GP-Term, Atalk-III* and *NComm 1.92.*



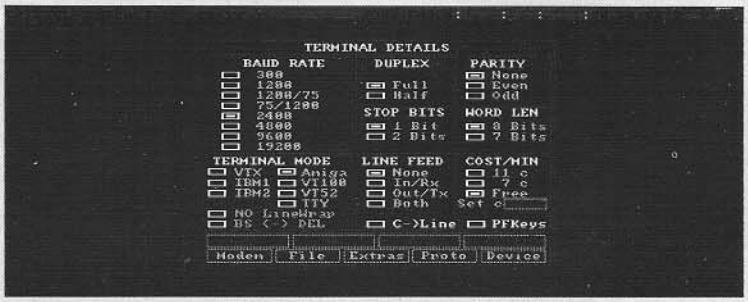
ATalk III

GP-Term 4.53

A local product, *GP-Term* is sold commercially for around $100. There is good local support and upgrades have been forthcoming. The program sports a slightly unusual interface, with some options being several windows deep. The phone book is annoying, for it must load each entry from disk. The dial window is rather bare and a little cumbersome compared to other programs.

In its favour *GP-Term* handles downloads well, with comprehensive support of the Z-Modem protocol. It is also the only program which correctly works with Telecom's Discovery 40 service and also handles switching to and from Discovery 80.

GP-Term provides the best Amiga, best IBM and best VT-100 emulation, is easy to use, reasonably well documented and supported. Selecting terminal options is quick and simple. Rumour has it that a major upgrade is in the works. For more information call GP-Software on (07) 366 1402.



Atalk-III 1.0

A fast, organised approach to menus and options makes *Atalk-III* a pleasure to use. A handy Quick menu provides most often selected options on a single intuition gadget based window. The phone book and dialling is smooth, with plenty of room for configuring each number individually. The documention is outstanding, with in depth coverage of all aspect of communications. *Atalk-III* is especially well equiped to handle speaking with main-frames.

On the down side there is a distinct lack of PAL support, clumsy multi-file selection for batch file transfers and a lack of low level control over modem settings. On the other hand the script language is strong, and there is a handy learn mode for automatically creating logon scripts. There's even a simple BBS host script for remote access to your machine.

Other strong points include the AREXX support, variety of screen options and overall speed. The worst point is the price, at around $150. For more information call Computermate on (02) 457 8388.

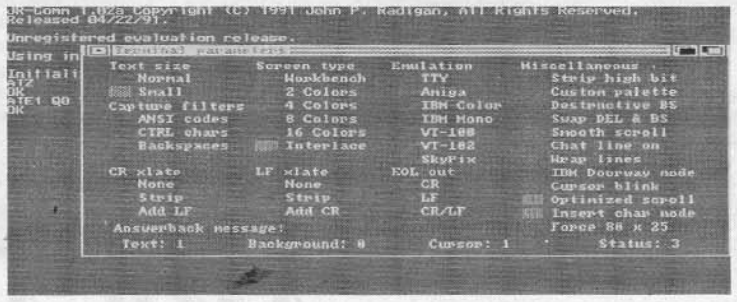
JR-Comm 1.02A

Despite the fact that this is often touted as public domain software, *JR-Comm* is as commercial as they come. It falls into a category known as Shareware - software which may be freely distributed, but to legally use it you must send money to the author directly. In return you receive a fully operational version which in *JR-Comm's* case removes an otherwise annoying delay screen. This sounds good except the author lives in America, so finding local support may not be easy. Worse still is the problem of trying to deal with problems when money sent doesn't result in a registered version being forthcoming.

With all that aside, *JR-Comm* remains a favourite of many regular telecomputing users. It sports a smart interface, plenty of low-level configurability, and a well thought out interface for most aspects of the program's operation including the phone book, terminal settings and default program settings.

All this power can be a bit much for the beginner. Also, the documention is a bit heavy and there's nothing in the way of script support - although an update with this and other features such as AREXX and XPR's is expected soon.

Good emulation of ANSI graphics and PC keyboard, excellent levels of program control and strong availability make *JR-Comm* a popular choice. ❑



JR - Comm

NComm 1.92

Unlike all the other programs mentioned, *NComm* is truly brilliant value for money. It's free. Well, it's as free as you make it.

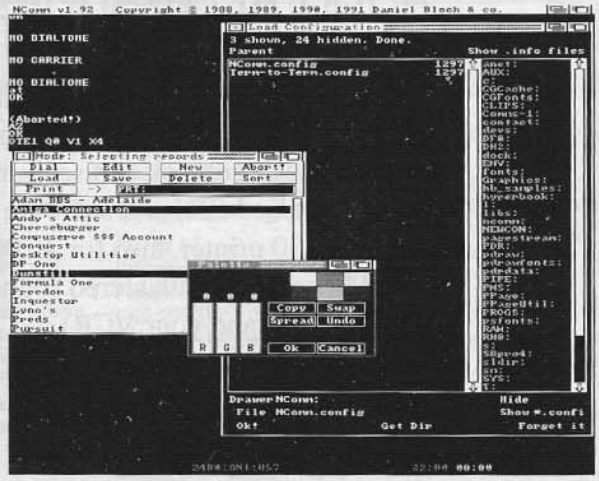
The authors encourage you to send them whatever you think the program is worth. So all you're likely to pay is the cost of downloading from your local BBS, or the price of a disk from a nearby user group or PD supplier, plus your token payment to the author.

NComm is a prize example of how all good software should be written. It is internally multitasking - so while you're waiting for a download you can edit the phone book or review the capture buffer. *NComm* has the most powerful script language I've ever seen on any Amiga terminal program. It's so good, that *Ncomm* includes a Host mode script which is more like a mini-BBS, complete with message and file areas, user security, bulletin areas and more.

There is good support for XPR's - external procotol libraries for protocols not supported when you first obtain *Ncomm*. I often use QuickB, a protocol especially for use on Compuserve. *Atalk* also supports this option, but *Ncomm* handles it better.

The phone book is fairly good - what is great is the quick dial pull down menu. Every phone number can have its own configuration - with common configs able to be shared between numbers. There is good handling of Macros but sadly no AREXX support.

The documentation is well written, and *NComm* offers plenty of controls over all aspects of operation. Ease of use, plenty of power and typical Amiga type menus coupled with a sensible approach to organising all the available functions has made *NComm* my choice for best communications program. And you can't beat the price. ❑



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BBS Etiquette

Keeping on the good side of your friendly local SYSOP is important. Keeping in good with other users also helps. Here's a guideline to what to do and not to do to make your stay a welcome one next time you call a Bulletin Board in your area.

1. Don't habitually hang up on a system. Every Sysop is aware that accidental disconnections happen once in a while but we do tend to get annoyed with people who hang up every single time they call because they are either too lazy to terminate properly or they labour under the mistaken assumption that the 10 seconds they save online is going to significantly alter their phone bill. "Call Waiting" is not an acceptable excuse for long.

If you have it and intend to use the line to call BBS systems, you should either have it disconnected or find some other way to circumvent it.

2. Don't do dumb things like leave yourself a message that says "Just testing to see if this thing works". Where do you think all those other messages came from if it didn't work?

Also, don't leave whiney messages that say "Please leave me a message". If ever there was a person to ignore, it's the one who begs someone to leave him a message. If you want to get messages, start by reading the ones that are already online and getting involved in the conversations that exist.

3. Don't use the local equivalent of a chat command unless you really have some clear-cut notion of what you want to say and why. Almost any Sysop is more than happy to answer questions or offer help concerning his system.

Unfortunately, because about 85% of the people who call want to chat and about 99% of those people have absolutely nothing to say besides "How old are you?" or something equally irrelevant - fewer Sysops even bother answering their pagers every day.

4. When you are offered a place to leave comments when exiting a system, don't try to use this area to ask the Sysop questions. It is very rude to the other callers to expect the Sysop to carry on a half visible conversation with someone. If you have a question or statement to make and expect the Sysop to respond to it, it should always be made in the section where all the other messages are kept. This allows the Sysop to help many people with the same problem with the least amount of effort on his part.

5. Before you log on with your favourite pseudonym, make sure that handles are allowed. Most Sysops don't want people using handles on the system. There is not enough room for them, and they get silly games of one-upmanship started, it is much nicer to deal with a person on a personal basis.

Last but not least, everyone should be willing to take full responsibility for his actions or comments instead of slinging mud from behind a phoney name.Also when signing on, why not sign on just like you would introduce yourself in your own society? How many of you usually introduce yourselves as Joe W Smutz the 3rd or 4th?

6. Take the time to log on properly. There is no such place as NEW, MEL, SYD or any of a thousand other abbreviations people use instead of their proper city. You may think that everyone knows what Sunshine VIC is supposed to mean, but every BBS has people calling from all around the country and I assure you that someone from Yappoon has no idea what you're talking about.

7. Don't go out of your way to make rude observations like "Boy, this system is slow". Every BBS is a tradeoff of features. You can generally assume that if someone is running a particular brand of software, that he is either happy with it or he'll decide to find another system he likes better. It does nobody any good when you make comments about something that you perceive to be a flaw when it is running the way the Sysop wants it to. Constructive criticism is somewhat more welcome.

If you have an alternative method that seems to make good sense then run it up the flagpole.

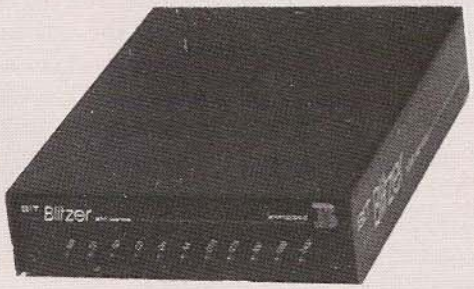
8. When leaving messages, stop and ask yourself whether it is necessary to make it private. Unless there is some particular reason that everyone shouldn't know what you're saying, don't make it private. We don't call them PUBLIC

The **Bit Blitzer** Modem - available from Dick Smith - comes in 3 models. All models are Hayes compatible, feature auto answer / dial / disconnect and include status lights:

12E - 300, 1200 baud, - *$299*

XM124E - 300, 1200, 2400 baud - *$399*

XM1234E - 300, 1200, 1200/75, 2400 baud - *$499*



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bulletin boards for nothing, folks. It's very irritating to other callers when there are huge blank spots in the messages that they can't read and it stifles interaction between callers.

9. If your favourite BBS has a time limit, observe it. If it doesn't, set a limit for yourself and abide by it instead. Don't tie up a system until the point where the Sysop has to ask you to log off - remember, there are other callers trying to get on the board.

Especially don't make a lot of transfers of large files during the busiest hours for the board you're using.

10. Don't log on to a system as a new user and run right to the other numbers list. There is probably very little that's more annoying to any Sysop than to have his board completely passed over by you on your way to another board.

11. Have the common courtesy to pay attention to what passes in front of your face. When a BBS displays your name and asks "Is this you?", don't say yes when you can see perfectly well that it is misspelled.

Keep firmly in mind that you are a guest on any BBS you happen to call. Follow any rules for system use the Sysop has laid out without grumping about it.

Also, don't start asking questions about simple operation of a system until you have thoroughly read all of the instructions that are available to you. I assure you that it isn't any fun to answer a question for the thousandth time when the answer is prominently displayed in the system bulletins or instructions. Use some common sense when you ask your questions. The person who said "There's no such thing as a stupid question" obviously never operated a BBS.

12. Don't be personally abusive. It doesn't matter whether you like a Sysop or think he's a jerk. The fact remains that he has a large investment in making his computer available, usually out of the goodness of his heart. If you don't like a Sysop or his system, just remember that you can change the channel any time you want. Besides, whether you are aware of it or not, if you make yourself enough of an annoyance to any Sysop, he can take the time to trace you down and make your life, or that of your parents, miserable.

13. Keep firmly in mind that you are a guest on any BBS you happen to call. Don't think of logging on as one of your basic human rights. Every person that has ever put a computer system online for the use of other people has spent a lot of time and money to do so. While he doesn't expect nonstop pats on the back, it seems reasonable that he should at least be able to expect fair treatment from his callers.

This includes following any of the rules for system use he has laid out without grumping about it. Every Sysop has his own idea of how he wants his system to be run. It is really none of your business why he wants to run it the way he does. Your business is to either abide by what he says, or call some other BBS where you feel that you can obey the rules. ❑

Archives

An archive is a group of files which have been crunched or compressed and pulled together to form one file instead of a few. The reason files are archived is to use less space and make uploading and downloading quicker and generally less painful - it costs less when STD charges apply. You must UnArc a program after you download it from a BBS and in order to do this, you must have the appropriate archive software.

There are many archive programs being used at the moment and a few of the more common ones are ZOO, ARC and PACK.

The latest and preferred archiver at the moment is a Public Domain effort that goes by the name of LHARC. *Lharc* was crated and kindly placed in the PD library by a chap called Paolo Ziberth. *Lharc* claims to create the smallest archives at the expense of a little bit more time to do the job and after trying out nearly all of the ones listed above, I find this to be true.

Lharc's archives are easily recognized by the suffix ".lzh" on the end of the file names. In the same fashion, one can recognize the other forms of archives by their respective suffixes. Most are self descriptive. ie; .zoo for ZOO archives, .arc for ARC and so on.

Learning to use these programs is actually quite easy as the documentation supplied with them is mostly comprehensive and excellent. (Amazing what you can learn by reading the instructions!)

There are even programs that will archive a whole disk, bootblock and all, and a couple that come to mind are WARP and LHWARP, the latter which has the equivalent benefits of the file archiver *Lharc*. *Lhwarp* by Jonathon Forbes consistently produces a smaller archive of a disk than any other disk compression program available at the time of writing.

The beauty of using these utilities lies in the fact that when a disk is compressed and later uncompressed, you end up with an exact duplicate of the disk you *Warped* or *Lhwarped*. The original disk's directory structure is maintained right down to the disk's original bootblock. There is even an automatic virus checker built into the programs which checks a disk's bootblock for known virus's when unwarping the disk. A great feature this, which safeguards you against infected downloads.

Most boards have all of the above archivers for downloading and they are usually found in PACK format. This is a handy archiver as no special software is required to "un-pack" the archive. All you need do is execute the archived file in the CLI and it will un-pack itself. ❑

On-Line Games

Once you're online to one of the hundreds of public access message systems around Australia, you're also online to some fun games filled not with mere computer generated characters, but other modem users!

We called several bulletin boards and found many offered a range of on-line games, varying in sophistication from simple hit-point combat to complex trading and galactic exploration. On Sanctuary, members will find the following menu of on-line games, typical of many other BBS's:-

***Sanctuary* online games**

<=> Main Menu
<-> Previous Menu
This months competition is playing on:
Galwars<I>
Competition Information
<R> Player Rankings
<P> Phantasia
<L> Leech
<M> M-M-M-Max Headroom
<W> Global Warfare
<E> Elynthia
<G> Galwars
<T> Poacher - Arcade game to fight for online Time! - Ansi only

We tried out three games, *M-M-M-Max Headroom*, *Galwars* and *Poacher*. All were inhabited by an assortment of other users, with a strong core of more enthusiastic callers pushing the higher levels. Here's a typical session from the game *M-M-M-M-Max Headroom* ... the guards are plain baddies, but you can also do battle with other players (Cokeologists) in the real world.

MAX HEADROOM

[A] - Armor Shop
[K] - Kill Character (reroll)
[C] - List Coke-ologists
[L] - Gamble
[D] - Doctor's Office
[M] - Graphics toggle (on/off)
[E] - Examine other Coke-ologists
[O] - List Today's Fights
[F] - Fight other Coke-ologists
[R] - Rob Bank
[G] - Fight guards
[S] - Your Status
[H] - Hall of Fame
[W] - Weapons Shop
[I] - Instructions (NEW!)
[+] - Put all money in bank
[-] - Withdraw Money from bank
You are attacked by 3 guards!
You have 15 hit points left
[F]ight, [R]un, [C]all Fiora, or [S]ummon Max: F
You hit them. They take 25 damage!

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The Ambassador
CrossDOS functionality for Bridgeboard
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You w-w-wasted them!
L-l-look!
A wallet containing $1800!
All guards have been eliminated! You go up to floor #2 (61 min.)
Max Command? G
There are 20 guards left on this floor.
How many do you wish to fight? 3
You are attacked by 3 guards!
You have 25 hit points left
[F]ight, [R]un, [C]all Fiora, or [S]ummon Max: F
You hit them.
They take 15 damage!
They hit you.
You take 3 damage!
They throw a poison dart at you...
You take 10 damage!
You have 12 hit points left
[F]ight, [R]un, [C]all Fiora, or [S]ummon Max: C
Fiora temporarily turns off the lights...
You recover 7 hit points back!
You have 19 hit points left
[F]ight, [R]un, [C]all Fiora, or [S]ummon Max: F
You hit them. They take 10 damage!
You w-w-wasted them!
L-l-look! A wallet containing $1800!
(61 min.) Max Command? A
Armor ShopOptions:
[B] Buy Armor
[S] Sell Armor
[L] List Armor
[Q] Quit
Armor Shop (B,L,S,Q,?) : B
You have $4150!
Armor # to buy (? for list, 0 for none): ?
Number: 1
Strength: 1
Price: 0
Armor: Clothes
Number: 2
Strength: 2
Price: 100
Armor: Thick Jacket
Number: 3
Strength: 3
Price: 200
Armor: Toughened Animal Skin
Number:4
Strength: 4
Price: 400
Armor: Thick Pads
Number:5
Strength: 5
Price: 800
Armor: Very Thick Pads
Number:6
Strength: 7
Price: 2,000
Armor: Bullet Proof Vest
Number:7
Strength: 8
Price: 4,000
Armor: Strong Bullet Pf. Vest
Number:8
Strength: 9
Price: 8,000
Armor: Cork for opponent's gun
Number:9
Strength: 11
Price: 20,000
Armor: Certification of AIDS
Number:10
Strength: 12
Price: 40,000
Armor: Full Metal Jacket
Number:11
Strength: 13
Price: 80,000
Armor: Very Full Metal Jacket
Number:12
Strength: 15
Price: 200,000
Armor: Too Full Metal Jacket
Number:13
Strength: 16
Price: 400,000
Armor: Empty Metal Jacket
Number:14
Strength: 17
Price: 800,000
Armor: Sherman Tank
Number:15
Strength: 20
Price: 2,000,000
Armor: Alias Print of Striker
You have $4150!
Armor # to buy (? for list, 0 for none): 7
A Strong Bullet Proof Vest costs $4,000.
Do you wish to purchase it? Yes
Armor bought!
(After a few more battles, I clocked up the following status.)
(58 min.) Max Command? S
Name : Andrew Farrell
Cokeologist : #11
Last On : 08/29/90
Floor : #2
Weapon : Chinese Star
Armor : Cork to put in opponent's gun
Guards Left : 4
Money : $0
Money in Bank : $1894
Daily Plays : 3
Calls to Fiora : 1
Calls to Max : 2
Guard Fights : 0
User Fights : 3
Hit Points : 21(25)
G-g-get a job!

Try these Online Game Bulletin Boards

System: Eagle's Nest BBS
Sysop: Philip Dean
Phone: (02) 451-0535
FidoNet: 3:714/409
Baud: V.22 V.22bis
Access: Mem Reg VA
Hours: 24 Hours
DOS: MS-DOS
BBSoftware: RemoteAccess+
Info: Specialising in online games.

System: Emperor's BBS
Sysop: Paul Cunningham
Phone: (049) 58-5493
Baud: V.21 V.22 V.22bis V.23
Access: Reg VA
Hours: 24 Hours
DOS: AmigaDos
BBSoftware: Empire
Info: Amiga Empire: A huge world simulation online game.

System: Games Galore
Sysop: David Edwards
Phone: (042) 26-5210
GTNet: 302/026
Baud: V.21 V.22 V.22bis V.23 V.32
Access: Mem Reg VA
Hours: 24 Hours
DOS: MS-DOS
BBSoftware: GTPower
Info: Specialising in online games.

System: GraceLands BBS
Sysop: Gavin Shelford
Phone: (02) 792-3922
FidoNet: 3:712/531.1
Baud: V.21 V.22 V.22bis
Access: Reg LVA
Hours: 24 Hours
DOS: Dr Dos
BBSoftware: RemoteAccess
Info: On-line games. Graphics.

System: K.K.K BBS (Killer Kenders of Krunn)
Sysop: Jim Lynch
Phone: (02) 418-6005 Multi-Line
FidoNet: 3:711/416
Baud: V.21 V.22 V.22bis V.23
Access: Reg VA
Hours: 24 Hours
DOS: MS-DOS
BBSoftware: TBBS
Info: This BBS is mostly devoted to Online & role playing games.

System: The Jolly Joker's Hideout
Sysop: Frank Calvaresi
Phone: (02) 609-5453
Baud: V.21 V.22 V.22bis
Access: Mem Reg LVA
Hours: 24 Hours
DOS: MS-DOS
BBSoftware: GTPower
Info: Specialising in online games.

The Black Knights Are Coming...

Quicknet™
Ethernet Board + 8Mb RAM
The Screamin Banshee™
Accelerators to blow your mind
Spacemaster™
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The Fast Lane™
Chip RAM Accelerator
Top Chip™
2Mb Chip RAM Expansion

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SAM™
SMPTE to MIDI time code + MIDI interface
Vkey™
Velocity Sensitive Keyboard with MIDI Interface
The Rainbow Factory™
Perfection in 24bit graphics
Crystal Sound™
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1992 Australian Amiga Product Guide

Although not as exhaustive as the massive software guide produced by Amazing Computing, our Amiga Annual has one very positive advantage. The products listed following are available in Australia and where possible, the Australian recommended retail price is listed along with a code for the distributor. A key to these codes appears at the end of the guide.

On the subject of pricing, some distributors are no longer publishing recommended retail prices. On these products, we suggest you check with your local Amiga reseller, or take a look at the latest advertisements in the *Australian Commodore and Amiga Review.*

We would also like to encourage distributors and retailers to keep us up to date with new products so that we can update our database during the year. Product information, including as much information as possible, should be faxed directly to (02) 816 4714.

Look under the following categories for what you want: Accessories, Accounting, Animation, Books, CAD, Communications, Database, Desktop Publishing, Desktop Video, Education, Fonts, Graphics, Hardware, Integrated, Joystick, Language, Multimedia, Music, Productivity, Programming, Spreadsheet, Tutorial, Utility, Video Hardware, Wordprocessing.

ACCESSORIES

150mb Tape Streamer
CBM
1,278.00

Amiga 2000(B) Keyboard Skin
CMT

Amiga 500 Keyboard Skin
CMT

Amiga 500 Keyboard & CPU Dust Cover
CMT

Beetle Mouse
GSO
High resolution 320 DPI mouse. Available in a range of colours.
65.00

CDTV Caddies
CBM
Set of two.
67.50

CI-3000 Printer Driver
DTU
Requires ADPro.
269.00

Epson 6000 Driver
DTU
Controls 300dpi Epson scanner via centronics cable (supplied) on parallel port. Operates from within Art Department Professional, providing 24 bit colour or 8 bit grey scale.
239.00

Golden Image Brush Pen
CMR
The mouse in the shape of a pen. Great for fine work in drawing programs, comes with mouse accelerator program.
99.00

Golden Image Mouse
CMR
Opto mechanical with 290 dpi resolution and micro-switch buttons and optional Deluxe Paint II. RRP $49.95 without Deluxe Paint II.
69.95

Golden Image Optical Mouse
CMR
Optical mouse with 250 dpi resolution and weighing only 85 gramms.
99.00

Infrared Mouse
MAS
Cordless mouse for all Amigas
CALL

Joystick
CBM
18.00

Mouse Doctor
CMT
Cleaning Kit.

Mouse House
CMT
Universal mouse cover. Max - Grey, Millie - Pink.

Mouse Shoe
PAC
4.95

Naksha Mouse
CMT
Replacement mouse for all Amigas.

ACCOUNTING

Desktop Budget
DFL
This icon based program establishes monthly payments, has a built-in calculator, provides month-end reconciliations and year-end rollovers, and quickly generates detailed statements.
95.00

Easyledgers
DFL
Fully integrated accounting system, sales, purchases, inventory and general ledger. Familiar bookkeeping interface. Point and click.
395.00

Easyledgers Service Industry Accounting
DFL
Uses basic format of familiar bookkeeping, organising your information into computerised "books". Easy to learn. Includes Ledger Book, Purchase Book, Sales and Inventory Book. Requires one megabyte.
549.00

Electronic Cashbook & Job Costing
CMT
Handles 5 separate banking sections, 15 Periodical Payments, 245 User Dissections, Audit Trial Facility, Manual/Batch Reconciliations.

Electronic Debtors
CMT
Accounts Receivable package, ported from MS-DOS environment.

Home Accounts
PAC
60 expenditure/10 income accounts, detailed statements for any range of months, monthly reports, budget cash flow forecasts, actual/budget comparison and more.
89.95

Personal Finance Manager Plus
CMT
Easy-to-use way of looking after bank account. Workbench interface allows transactions to be entered or altered, number of entries limited only by memory. Includes auto balancing, account print option & more.

System 3
PAC
129.00

System 3E
PAC
149.00

ANIMATION

Animagic Aegis
CMT
Editing program for ANIM files to produce video style special effects, fades, wipes, dissolves, twists, turns, zooms, etc.

Animation Studio 3D
CMT

Animator/Images Aegis
CMT
Bitmap animator with 'morph' tweening. The original 2D animator, bundled with Aegis Images. Tweening, cut and paste screens, only NTSC.

Deluxe Photolab
ECP
HAM painting and image processing. Handles poster size images. Three programs in one.
99.95

Elan Performer 2.0
CMT
Control of imagery and animation in paint / animation programs using RIFF and ANIM formats. Assign imagery / animation to keys, call to screen with a keystroke.

Images Aegis
CMT
Bitmap paint system. With Deluxe Paint, one of the two original paint programs for the Amiga. This one has not progressed, bundled free with Animator.

Interior Design Disk - Sculpt
CMT
3D object library for use with Sculpt/ Animate.

Interior Design Disk - Videoscape
CMT

Kara Anim Fonts 1 - 3
CMT
Kara Anim Fonts #1 - ChromeScript, an 8 colour, formal script in caps & lower case. Kara Anim Fonts #2 - Bullion, a dimensional, bevelled, highlighted uppercase Gothic 8 colour font. Additional palettes & utilities.

Modeller 3D
CMT
3D object editor - can be used with Sculpt 3D, Videoscape 3D.

Movieclips
DFL
Collection of MovieSetter animation sequences, backgrounds, props and sounds.
49.95

Moviesetter
DFL
WYSIWYG animation package. Offers full palette control for up to 32 colours, colour cycling, speeds up to 60 frames per second.
95.00

PageRender 3D
CMT
3D static image rendering and 3D animation. Also compatible with PageFlipper Plus FX. AREXX support.

Professional Draw 2.0
DFL
Structured graphics program with assorted geometric / freehand drawing tools. Includes reflection, rotation and distortion tools with full text capability. WYSIWYG
275.00

Promotion
CMT
Create object and camera paths for Videoscape animations using simple staging directions and point and click interface. Requires VideoScape 3D.

Real 3D - 1.4 Upgrade
CCS
499.00

Real 3D 1.3 - 1.4 Upgrade
CCS
130.00

Real 3D 1.4 - Beginner
CCS
299.00

Real 3D Turbo/Pro
CMT
679.00

Real 3D Turbo/Pro - Fusion Forty (68040)
CCS
779.00

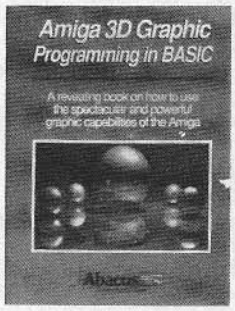
Real 3D Turbo/Pro VD2001/ VD2020 Version
CCS
779.00

Sculpt Animate 4D
CMT
Objects can be created, joined together, rotated, duplicated, expanded to produce a complex piece.

BOOKS

Amiga 3D Graph. Prog. in BASIC Disk
PAC
Supplementary disk to Amiga 3D Graphics Programming in BASIC
19.95

Amiga 3D Graphics Programming in BASIC
PAC
Details the techniques and algorithms used in generating 3D graphics from Amiga BASIC.
49.95



Amiga Adv. Systems Prog. Guide Disk
PAC
Supplementary disk to Amiga Advanced Systems Programmers Guide
19.95

Amiga Advanced Systems Programmers Guide
PAC
Second volume detailing the "internals" of the Amiga. Includes the latest information on Kickstart and Workbench 1.3.
69.95

Amiga C for Advanced Programmers
PAC
How compilers/assembers/linkers work, designing/programming user friendly interfaces with intuition, combining assembly language and C codes. Includes source.
69.95

Amiga C for Advanced Programmers Disk
PAC
Supplementary disk for Amiga C for Advanced Programmers.
19.95

Amiga C for Beginners
PAC
Explains C in plain English using examples. Includes beginners overview, special features of C, important routines, input/output in C, tricks and tips and more.
49.95

Amiga C for Beginners Disk
PAC
Supplementary disk for Amiga C for Beginners.
19.95

Amiga Desktop Video Guide
PAC
Abacus. Step-by-step guide for beginners and advanced artists, Includes 8 pages of full colour illustrations and list of products and manufacturers.
49.95

Amiga Disk Drives Inside & Out
PAC
All you need to know about Amiga disk drives.
49.95

Amiga Disk Drives Inside & Out Disk
PAC
Supplementary disk to Amiga Disk Drives Inside & Out.
19.95

Amiga for Beginners
PAC
Introduction to intuition, the mouse, windows, the CLI, and Amiga BASIC.
39.95

Amiga Graphics Inside & Out
PAC
A comprehensive guide to understanding and using Amiga graphics. Shows simply and in plain English how to access and harness the graphic power of your Amiga. Examples for AmigaBASIC and C.
49.95

Amiga Graphics Inside & Out Disk
PAC
Supplementary disk for Amiga Graphics Inside & Out.
19.95

Amiga Hardware Reference Manual
CMT
An in-depth description of the Amiga's hardware including tutorial on writing Assembly language programs, descriptions of the co-processor, the playfield sprites and blitter. Eight appendices and glossary.

Amiga Machine Language
PAC
Introduction to 68000 assembler machine language programming, covers 68000 microprocessor address modes and architecture, speech and sound.
49.95

Amiga Machine Language Disk
PAC
Supplementary disk to Amiga Machine Language.
19.95

Amiga More Tricks & Tips
PAC
A compilation of various hints and tips for Workbench, CLI and especially BASIC users.
49.95

Amiga More Tricks & Tips Disk
PAC
Supplementary disk to Amiga More Tricks & Tips.
19.95

Amiga Printers Inside & Out
PAC
Complete guide to using and adapting various printer drivers using preferences and ensuring your printer is set-up correctly. Includes information and utility to create your own custom drivers.
69.95

Amiga ROM Kernal Reference
CMT
Essential for the serious C programmer. Includes Autodocs. Libraries and Devices. Two volumes.

Amiga System Programmers Guide
PAC
Covers EXEC structure, I/O requests, interrupts and resource management, multitasking functions.
69.95

Amiga System Programmers Guide Disk
PAC
Supplementary disk to Amiga System Programmers Guide.
19.95

Amiga Tricks & Tips
PAC
Tips on accessing libraries from BASIC, custom character sets, AmigaDOS, sound, important 68000 memory locations.
49.95

Amiga Tricks & Tips Disk
PAC
Supplementary disk to Amiga Tricks & Tips.
19.95

Amiga User Interface Style Guide
CMT

AmigaBASIC Inside & Out
PAC
Tutorial on Amiga BASIC, shows in great detail all BASIC commands with plenty of example programs.
49.95

AmigaBASIC Inside & Out Disk
PAC
Supplementary disk to AmigaBASIC Inside & Out Book.
19.95

AmigaDOS Inside & Out
PAC
Internal design to practical applications of AmigaDOS Includes reference section.
49.95

AmigaDOS Inside & Out Disk
PAC
Supplementary disk to AmigaDOS Inside & Out
19.95

AmigaDOS Manual
CMT
Guide to the CLI. Essential for the serious user. Third edition.

AmigaDOS Quick Reference Guide
PAC
Details on AmigaDOS commands covering Versions 1.2 and 1.3
19.95

AmigaVision Handbook
CMT

Best of Amiga Tricks & Tips
PAC
The cream of programming tricks and tips have been assembled into one book covering DOS, BASIC and more.
79.95

Computer Games Guide Hints, Tips & Pokes
PAC
Information on over 400 games and adventures and now includes complete solutions to 40 latest releases.
29.95

Kids and the Amiga
CMT
Includes over 30 sections with instructional notes. Has lessons, assignments and lively illustrations.

Making Music on the Amiga
PAC
Shows how to take advantage of the musical capability of the Amiga and how to make your own MIDI interface. Includes disk with music and utilities, and disk with music examples.
69.95

The Amiga Companion
CMT
Comprehensive guide to AmigaDOS and the CLI.

CAD

Board Master
CMT
PCB Design. Printed circuit board design.

CAPS Send Station
CCS
1359.00

CAPS Work Station
CCS
919.00

Draw 2000
CMT
Structured drawing package. Latest version of Aegis medium level design program. Export files to Modeller 3D. Slow in operation with a large drawing.

Homebuilders CAD
CMT
Non-metric. 3D design and estimating for home and small commercial construction. Good for contractors, owner/builders, set design, office design, farm design real estate brokers, architects and cabinet makers.

IntroCAD
CMT
Introductory CAD system. User friendly, object oriented CAD program. Output laser-like results on dot matrix printers.

IntroCAD Plus
CMT
More powerful than IntroCAD. Adds layers, hatching, AREXX support and more drawing tools. User-definable keyboard equivalents.

Ultra Design
CMT
Auto-dimensioning professional CAD system. Features paste-up module for plotting and scaling single or multiple drawings for output over one or several pages.

COMMUNICATIONS

A-Talk III
CMT
For communications and terminal emulation on Amiga. Includes X, Y, ZMODEM, KERMIT, and ASCII protocols. Script language with over 40 commands, unattended mode 60 entry phone directory, quick menu and more.

Baud Bandit 2400 Modem
CMT

Baud Bandit 9600 Modem
CMT

GP Term
GPT
Full ANSI and Videotex communications software for all Amigas. Supports Amiga, IBM, VT100/103 terminal emulations. File transfer protocols Zmodem, Ymodem, Xmodem, Kermit and Videotex-CET.
99.00

GPFax
GPT
Provides full send/receive fax capabilities for any Group 3 Class 2 modem (Maestro XR9600 and similar). Com-

Commodore

Authorised Independent Service Centres

Australian Capital Territory

Amalgamated Business Machines (06) 280 4887
65 Kembla Street Fyswick ACT 2609

Compuserve (06) 285 1755
3 Dundas Court Phillip ACT 2606

New South Wales

Amtech Pty. Ltd. (02) 872 6883
Suite 2, 63 Tintern Ave Telopea NSW 2117

AVC Electronics (042) 286 932
23 Ellen Street Woollongong NSW 2500

Basecom Computer Services (02) 907 9270
Shop 2, 20-28 Montauban Ave Seaforth 2092

Bithramere Computers (067) 674 272
783 Duri-Wallamore Road Bithramere NSW 2340

Central West Computer Care (063) 322 555
Shop 4 Brook Moore Centre Bathurst NSW 2795

Computer Tech Services (02) 547 2333
43 Planthurst Street Carlton NSW 2218

Computer and Bits (047) 214 553
Lot 44 Regentville Road Sth PenrithRd NSW 2750

DADNJ Electronics (049) 56 6255
10 Nelson Road Cardiff NSW 2285

Gainrun Pty Ltd (02) 757 1055
Unit 7, 27 Justin Street Smithfield NSW 2164

Gilgandra Electronics (068) 47 2491
72 Miller Street Gilgandra NSW 2827

Griffith Computer Repairs (069) 62 2318
69 Banana Lane Griffith NSW 2680

Kwiktron Pty Ltd (02) 796 4404
Unit 2/106 Canterbury Road Bankstown NSW 2200

Malcolm Graham Computer Repairs (065) 54 5935
14 Wharf Street Tuncurry NSW 2428

P & W Croese (064) 93 2123
106 Auckland Street Bega NSW 2550

Pace Computer Services (02) 692 7900
17 Moore Street Leichhardt NSW 2040

Sherlock Electronics (049) 62 2514
25 Broadmeadow Road Broadmeadow NSW 2291

Sibnet Pty. Ltd. (02) 417 7600
(Rear) 13 Gibbes Street Chatswood NSW 2067

Unitech Computer Services (042) 27 1323
94 Market Street Wollongong NSW 2500

Nothern Territory

Computer Support & Maintenance (089) 811 499
34 Daly Street Darwin NT 0800

Western Australia

Chip Busters (09) 472 3899
Shop 5, Victoria Pk Villa 910 Albany Hwy Perth WA 6101

Computer Workshops (09) 227 7373
105 Lord Street Perth WA 6000

Comfix (09) 388 1665
111 Cambridge Street Leederville WA 6007

Queensland

ABEC Electronics (074) 43 6520
21 Parker Street Maroochydore QLD 4558

Keyboard Electronics (075) 916 6188
Unit 5/15 Printer Drive Southport Qld 4215

Parcom (Brisbane) (07) 395 2211
Shop 10, White Hill Shopping Ctre Camp Hill Qld 4125

Parcom (Stafford) (07) 857 6311
1 Clifford Street Stafford Qld 4053

PCB Electronics (070) 33 1217
502 Mulgrave Road Earlville Qld 4870

SEQ Computer Repairs (07) 816 1588
Shop 4, 32 Brisbane Rd Bundamba Qld 4304

South Australia

Adelaide Cash Register (08) 231 1433
178 Gouger Street Adelaide SA 5000

Computer Repair Centre (08) 371 2377
16 Croydon Rd Keswick SA 5035

Force Electronics (08) 326 0901
5 Somerset Circuit Lonsdale SA 5160

Our Service Company (08) 32 5011
111 Adelaide Rd Murray Bridge SA 5253

Procare (08)364 3988
18 Kensington Road Rose Park SA 5067

Radcom (08) 287 1191
Unit 7 100 Hewittson Road Elizabeth Sth SA 5113

Riverland Computers (085) 86 6725
Ral-Ral Avenue Renmark SA 5341

Serviscope (08)364 3773
368 Magill Road Kensington SA 5068

Victoria

Kinetic Energies (052) 29 2316
53A Gheringhap Street Geelong VIC 3220

Megatron Computer Industries (03) 870 4017
Unit 2 62-64 Charter Street Ringwood VIC 3134

Northwest Electronics (03)744 4440
Unit 5, McDougall Rd Sunbury VIC 3429

Nucleus Computer Services (03)563 6588
1048-1054 Dadenong Road Carnegie VIC 3163

Pace Computer Services (03) 419 0444
Unit 1 19-35 Gertrude Street Fitzroy Vic 3065

Tate Palmer Technology (03)543 6060
38B Scotsburn Avenue Oakleigh South VIC 3167

Tasmania

Precision Solutions (002) 31 1633
295 Sandy Bay Rd Sandy Bay Tas 7005

Commodore Business Machines (02) 427 4888

plete intuition interface, converts any text or IFF file to G3 fax format, send multiple pages, and more.

159.00

Mega 1234 Modem
AVT
V21/22/23/22Bis. Auto-dial, auto-answer, auto-disconnect.

399.00

MegaPlus 1234MMP Modem
AVT
V21/22/22bis. MMP4 error correction, MMP5 data compression, auto-dial, auto-answer and auto-disconnect.

449.00

MegaPlus V32 MMP Modem
AVT
V21/22/23/22 Bis, also V32 9600 BPS. Auto-dial, auto-answer and auto-disconnect, with MMP4 error correction and MMP5 data compression.

799.00

On-Line! Platinum
CMT
Terminal program allowing interaction of micros and mainframes to enable users to exchange information, news and data.

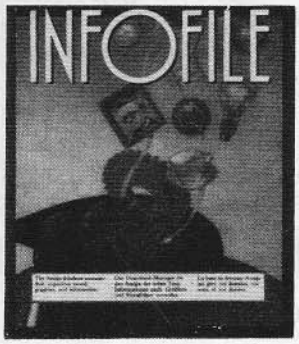
DATABASE

Contact 2.0 with CalcKey
DTU
Personal database manager. Dials phone, prints labels including to PostScript, inserts data in document file of active application. Load/save data files, autosave, Demo disk available. CalcKey 1.3 included.

89.00

InfoFile
DFL
Amiga information management system. Store, sort and retrieve sound, graphics and text. Requires Kickstart 1.2 or 1.3 and one megabyte.

99.95



Data Retrieve
PAC
Use keyboard short-cuts or pull-down menus, uses screen masks with text styles, fonts, colours and graphics.

99.00

Mailshot Plus
PAC
WYSIWYG, fully menu driven, detection of duplicates, main file and subset, 'Marker' facility for searching/sorting, conditional searching, merge file facility.

69.95

Organize!
CMT
Create a custom filing system for organising business records, contact lists. Up to 128 fields per form and 254 bytes per field. Boxed.

Professional Dataretrieve
PAC
Featuring up to 8 files that can be edited simultaneously. Create or edit on-screen masks for one or many files.

199.00

Superbase Personal 2 + SuperPlan
CMT
Full multi-file relational power, VCR style control panel, 3 ways of viewing data, set-up and change file definitions quickly, include images/sound/text.

Superbase Professional V4.0
OZI
Database management language, over 250 high level commands. Report generator, Intelligent Forms Editor, extensive programmable telecommunications facilities.

499.00

Who! What! Where! When!
DFL
Provides a phone directory, appointment book, things to do list, alarm clock and calendar. Event based - ideal for sales people, or anyone who has a lot of appointments and contacts to look after.

79.95

DESKTOP PUBLISHING

Art Gallery I and II
DFL
Additional graphics libraries for Printmaster Plus.

49.95

Calligrapher
CMT
Font editor - includes ColorFonts and FontMover. Edit size, position, shape, colour, pattern, style, kerning and spacing, italic slant, and more.

ComicArt Series
DFL
Clip art designed to be used with ComicSetter. Funny Figures, Science Fiction or Super Heroes.

49.95

ComicSetter
DFL
Colour Desktop Publishing for comics lovers. Object oriented interface, selection of clip art, import objects from IFF paint package or clip art.

95.00

Compugraphic Decorative Fonts Gold Disk
CMT
For Pagestream and Professional Page. Includes Brush, Cooper Black and Letraset Review Shadow.

Compugraphic Designer Fonts - Gold Disk
CMT
For Pagestream and Professional Page. Includes Bodoni Book, Microstyle, Extended and Park Ave.

Compugraphic Outline Fonts - Gold Disk
CMT
For Pagestream and Professional Page. Thirty Compugraphic typefaces for high resolution dot matrix or postscript printers.

Compugraphic Publisher Fonts - Gold Disk
CMT
For Pagestream and Professional Page. Includes Antique Olive, Garamond Antiqua, Future and Book II

Compugraphic Video Fonts - Gold Disk
CMT
For Pagestream and Professional Page. Includes Clarendon, Guture II Bold and Dom Casual.

Datascan Professional
PAC
Scan from 100 to 400 dots per inch, it is 105mm wide. Supplied complete with Datascan image scanning and editing software. The software can easily merge two 105mm wide scans together to form a single A4 image.

499.00

Deluxe Print II
ECP
Create stationery, banners, cards and the like.

99.95

Deluxe Video III
ECP
Create video presentation combining sounds, Sonix music, IFF images and animation. Time based editing with limited interactive capabilities. Includes stand-alone player.

99.95

Design 3D
DFL
3D modelling/rendering system, user friendly interface. No HAM/true ray-tracing. Good rendering with half-tone dithering of 16 colours. 3D text generator.

95.00

Design Works
CMT
Structured drawing for the Amiga. Fast redrawing and an intuitive interface. Includes Bezier curves, multiple drawing layers, flexible text handling, user-definable multicolour patterns. Near-PostScript result.

Eclips
DFL
Structured Clip art compatible with Professional Page or Professional Draw, over 300 clips and a wide selection of subjects.

139.95

Outline Fonts
DFL
Typefaces which may be used in Professional Page and Professional Draw for optimum output from any printer including 9 and 24 pin InkJets, LaserJets and DeskJets and also fully PostScript compatible.

275.00

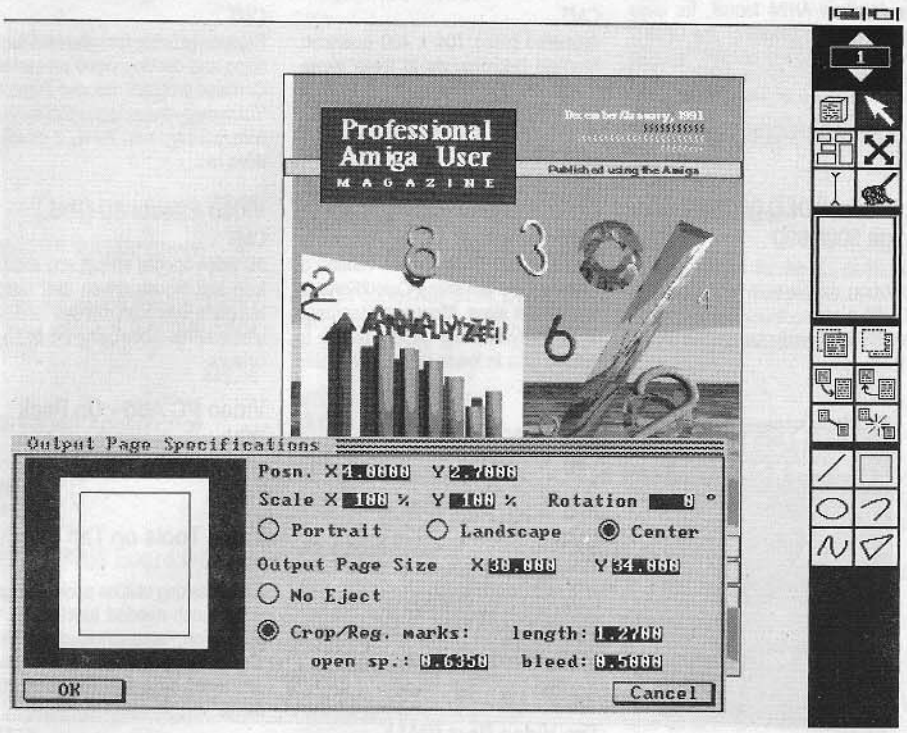
PageSetter II
DFL
Produce newsletters, flyers, resumes, ads, brochures and more on a dot matrix printer. Includes unlimited number of columns, four levels of magnification, ruler grid, margin, measurements in inches/pica or cms.

179.95

Pagestream 2.1
CMT
Variety in publishing programs such as colour separation, rotation of text and graphics, text formatting and manipulation options.

Pagestream Font Editor
CMT

Pagestream Font Pack 1
CMT
Dot Matrix and PostScript. Spokane,



Professional Page - *Output page specification dialogue box*

Devoli, Thames, Westside, Elegance, Zip, Roman, Bookface, Calgary, Athena, Lineprinter, LuciSans, PageStream, Circus and Keyboard 2 Amiga.

Pagestream Font Plus Pack
CMT
Dot Matrix and PostScript. Helvetica Narrow, Helvetica Avant Garde, Chancery, Courier, Times, Bookman, Palatino, Schoolbook, Dingbats and Symbols.

Pagestream Fonts 1 + Pack (1 and 8)
CMT
Dot Matrix and PostScript. Spokane, Devoli, Thames, Autobahn, Leroy Script and Crackers.

Pagestream Fonts 2 + Pack (2 and 7)
CMT
Dot Matrix and PostScript. Elegance, Roman Bookface, Westside, Mars One, Oddballs and Paint Brush.

Pagestream Fonts 4 + Pack (4 and 14)
CMT
Dot Matrix and PostScript. Courier, Palatino, Symbols, Coliseum, Tripoli and Anchovies.

Pagestream Fonts 5 + Pack (5 and 9)
CMT
Dot Matrix and PostScript. Schoolbook, Helvetica Narrow, Dingbats, Bodoni, Quadrant and Romanopolis.

Pagestream Fonts 16
CMT
Dot Matrix and PostScript. 30 Wt Solid Round, Antiquity and Lincoln.

Pagestream Quick Forms
CMT
One hundred ready made business forms, page layouts and assorted documents.

PostDriver 2.0
DTU
Provides support in Devs for output to a PostScript printer. Now databases, spreadsheets and text editors can write directly to one. No need to reset printer to BPLLaser jet emulation each time. Supports colour.
99.00

Printmaster Plus
DFL
Create your own banners, greeting cards, signs, etc. by choosing from over 120 graphics and background patterns with eight type fonts in a variety of sizes. Preview on screen before printing.
49.95

Pro Clipart Vol I & II
DTU
Structured clipart for the Amiga, for use with desktop publishing and structured art programs such as Pro Page and Pro Draw. Australian images included.
49.00

Professional Page 2.1
DFL
Uses AGFA Compugraphic fonts for a professional quality type. Precision typography, unparalleled graphic control and colour separation are featured.
469.95

Professional Page Templates
DFL
Designs for Advertisements, Envelopes, Business Cards, Flyers, Brochures, Reports, Newsletters, Layout Grids. Also includes font charts and glossary of contemporary design terms.
79.95

Professional Scanlab
DTU
Controls the Sharp JX-300, 450 and 600 colour scanners with the A2000 and above. New, slimmer board. Global colour correction, brightness and contrast controls, positive/negative conversion, palette selection & more.
1290.00

Publishers Choice
DFL
Basic DTP system - Kindwords V2.0, PageSetter 1.3 and Artists Choice.
199.95

SoftClips
DFL
A collection of high quality, hi-res, bit mapped clip art. Volume 1 - Classic art, Volume 2 - People art, Volume 3 - Collectors, Volume 4 - Animals.
109.95

Structured ClipArt
DFL
A collection of professionally drawn structured clip art covering a wide variety of topics. They can be resized and manipulated in Pro Page or Pro Draw, with non-jaggy output from any printer.
79.95

Top Form
CMT
Design and print professional forms for office or home Import or merge text files with forms. True print not a graphics dump so forms are clear and crisp.

Type - Gold Disk
DFL
High quality AFGA Compugraphic outline fonts. These fonts can be used in any point size and in any product that supports Amiga fonts.
79.95

DESKTOP VIDEO

Amilink Consumer - C12-VP (2 VCR's)
CCS
Domestic version, suits Panasonic or Sony VCR's.
2510.00

Amilink Consumer C13-VP (3 VCR's)
CCS
Domestic version, suits Panasonic or Sony VCR's.
3825.00

Amilink Consumer C14-VP (4 VCR's)
CCS
Domestic version, suits Panasonic or Sony VCR's.
4695.00

Art Department Professional V2.0
DTU
Advanced 24-bit image processing package. Reads and writes many image formats. Comes standard with loaders and savers for IFF, GIF, PCX, Sculpt, Digiview, Turbo, BMP, JPEG and more. Extensive AREXX interface & more.
369.00

BCD 2000A Animation Controller
CCS
2189.00

BCD 2000A Display Module
CCS
599.00

BCD 5000A-2 VTR'S + Display
CCS
5319.00

Broadcast Titler II
CMT
2160 x 1440 effective res, displays multiple IFF pictures and colour fonts, accepts popular Amiga and colour fonts. Full 736 x 480 overscan, 4096 palette.
480.00

Broadcast Titler II Font Enhancer
CMT
Convert any single colour Amiga font to Broadcast Titler 2's four level anti-aliased format. Eliminates jagged edges, fonts occupy up to five times less memory, preserves detail in reduction.
250.00

Broadcast Titler II Font Pack #1
CMT
Ten professional high quality typefaces. All fonts are in both anti-aliased Broadcast Titler 2 and standard Amiga formats. Font sizes are 100 scanlines in height. Each font contains full 256 ASCII character set.
250.00

Broadcast Titler II with 35ns Option
CCS
Provides 'REAL' Broadcast quality titling.

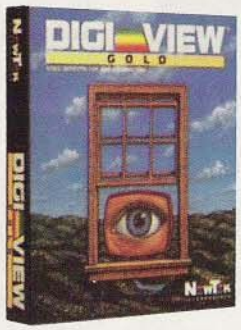
CI-3000 Film Recorder
DTU
High resolution slides (2000/4000 lines) and prints from files on disk, can be taken from any format supported by Art Department Professional. Requires ADPro CI-3000 - camera backs for 35mm slides/ Polaroid film.
9815.00

CI-5000 Film Recorder
DTU
High resolution slides (2000/4000 lines) and prints from files on disk, can be taken from any format supported by Art Department Professional. Requires ADPro.
13048.00

Credit Text Scroller
CMT
Using point-and-click interface, select fonts, font sizes, and scroll rates. Result is in common ANIM format, for easy interchange with programs like DPaint. Automatic shadows, colours, subtitle option and more.

Digi-View 4 Upgrade
CMT

Digi-View GOLD IV (PAL) - Amiga 500/2000
OZI
A500/2000. digitise from 320 x 200 up to 768x480, 2-4096 colour, enhanced HAM, 100% IFF compatible, advanced dithering routines.
299.00



Digi-View Professional Colour Wheel
CMT
Perspex colour wheel for use with Digi-View.

Digiview
OZI
Same software as Digi-View Gold, however, the interface is different. Suits A1000 only.
353.95

Harlequin 3000
CCS
4130.00

Harlequin TV Paint
CCS
2740.00

Kara Headline Fonts 2
CMT
Two disk set with four new eight colour fonts in two-three sizes each. ChiselScript, Glass, Engraved and Embossed.

Kara Headline Fonts 1
CMT
Three disk set, features 10 hi-res, dimensional, up to 8 colour, uppercase fonts in 2 sizes each. Font styles in Chrome, Marble, Brick, Granite, Chisel, Wood, Bevel Cast, Chisel serif and Column.

Kara Starfield Fonts
CMT
Animated hi-res 704 x 480 overscan, Starfield backgrounds in three views. Each in a two-colour version fast loading to dump to video and 16 colour palette version include two different Kara Fonts & more.

Kara Subhead Fonts
CMT
Two disk set. Scaled down version of Headlines, offers same ColourFonts in two smaller sizes. Allow a greater range of flexibility in titling without having to reduce, use in lower res at a workable size.

Pro Video CGII
CMT

Pro Video Plus (PAL)
CMT
Video character generator. Hi-res video with expanded screen size of 672 horizontal pixels by 500 scan line Requires Kickstart 1.2 and 1 meg with at least 410k of Chip & 400k fast RAM. Second drive required.

Pro Video Post (PAL)
CMT
Provides full screen manipulation tools. With unique keyboard user interface, full hi-res overscan screens can be reduced, enlarged and manipulated. Screen res of 720 x 480.

Protitler
FRD
A full titling package that runs on 1 meg, provides roll, crawl and elastic effects. Will work on A500 with 1 meg memory, loads IFF files, will accept colour fonts up to 8 colours, and many more features.
369.00

Scroller
DTU
Big Alternative Scroller or BAS is a fast, smooth, simple titling package ideal for quick work and entry level titling. Offers fonts suitable for video use, choice of text styles, sizes, colours and effects.
129.00

Title Page
CMT
Professional titling package and brush manipulator. Titler, font manager, script viewer, effects editor, pattern editor, list modifier and slideshow system included. Arexx Support, full IFF support, and more.

TV Show V2.0 (PAL)
CMT
Slide show generator. Add speech and now supports ANIM's and digitised sound, AmigaDOS V2 compatible. One mb RAM, 2 disk drives or hard drive recommended.

TV Text Professional
CMT
Produce lettering and graphics for video titling and desktop video presentations. Contains program disk and Zuma Fonts Volumes 1 - 3 and Users Guide. Full IFF compatibility, 1mb RAM, 2 drives/hard drive rec.

Video Effects 3D (PAL)
CMT
3D video special effects and animation. Icon and mouse driven user interface. Supports overscan, on-line help. Operates in hi-res mode using 2-8 of the 4096 colours.

Video PC Add - On Pack
CBM
AlterImage.
599.00

Video Tools on Tap
FRD
A multitasking utilities package that provides much needed function for video production. Features include colour bars, auto detect illegal colours, run out count plus tones, supports overscan and many more.
119.00

VideoTitler 3D
CMT
Video titling and special effects.

EDUCATION

Adventures of Sinbad
DFL
Exciting, animated graphics will capture your child's imagination while building vocabulary and reading skills. Over 600 reading comprehension and synonym/ antonym questions. Grades 2 - 6.
59.95

Aesop's Fables
DFL
Age-old fables depicted with graphics and large, easy- to-read text. Includes four different learning modules : Aesop's Fables, Aesop's Spells, Spelling Skills, and Memory Builder.
59.95

Algebra Plus Volume 1
DFL
Hands-on problem-solving experience for pre to intermediate algebra students. Provides explanations for each working step of the equation, visual prompts also help. Grades 8 - 12.
79.95

Algebra Plus Volume II
DFL
Concentrates on advanced levels of al-

gebraic concepts. In-depth coverage of polynomials and quadratic equations. Combines with Volume I to complete first year algebra instruction. Grades 8 - 12.
79.95

Animal Kingdom
DFL
Six programs to teach children about the wonders of the animal kingdom. Grades 1 - 6.
59.95

Better Maths
PAC
Ages 12 - 16. A range of topics from fractions to equations with improved graphics, sound effects and playability.
59.95

Better Spelling
PAC
Ages 8 - adult. Covers punctuation, grammar, usage and more.
59.95

Bible Reader
CMT
New International version which contains all 66 books, easy-to-read modern English translation. Large 300-thousand character concordance/reference.

Birds 'n' Bees
PAC
Designed to teach children about themselves and their development. Access levels are set by parents. Explains sexual development and goes into hazards such as AIDS, sexual harassment and abuse and their reactions to it.
39.95

BrainScrambler
DFL
New dimension on an old pastime - jigsaw puzzles. Nineteen different puzzles to choose from, with seven levels of difficulty. Load your own art as a puzzle.
32.00

Decimal Dungeon
DFL
Add, subtract, multiply or divide decimals, convert them to percents or fractions or vice versa to escape the crystal caverns of the dungeon master. Incorrect answers are given full screen explanations.
59.95

Designasaurus
CMT
Dinosaurs come alive with sights and sounds. Create your own prehistoric giant. Print out 12 different dinosaurs.

Dinosaur Discovery Kit
DFL
Experiment with colour and learn about dinosaurs in the colouring book module. Grades K - 3.
49.95

Dinosaurs are Forever
CMT
Build dinosaurs, print out, colour in, experiment with simulator.

Discovery 2.0
CMT
Game disk with math or spelling. Easy playability and compelling graphics. Extension disks also available.

Distant Suns 3.0
DFL
Features realistic colour with full screen sky viewing option, 2,200 starts, 450 deep sky objects in an authentic astronomically correct sky, 9,100 star expansion disk available. Requires one megabyte.
99.95

Dr. Spelingstein
DFL
Engaging game format with colour graphics and sound effects. Includes full teacher control, three different games, ability to test number facts, general knowledge etc. 164 graded word lists for use at home.
59.95

EZ Grade
CMT.
Teacher class grading software.

First Shapes
DFL
Increase your child's readiness for mathematics, reading, writing and problem solving with the First Byte Bear, a talking computer friend. Grades Preschool - 3.
49.95

Flowers of Crystal
DFL
Adventure game in two parts. Includes a teachers guide story book, audio-cassette and map.
69.95

Fraction Action
DFL
Includes a variety of addition, subtraction, multiplication and division problems on 3 difficulty levels.
59.95

Fun School 2
PAC
Range of three disks for ages 2 - 6, 6 - 8 and 8 up. Animation and sound effects are used to present multiple subjects in a game style format.
49.95

Fun School 3
PAC
The range consists of three separate programs suitable for the following age groups:- 3 - 5 years, 5 - 7 years and 8 years up. Feature graphics, sound effects and rewarding the child for achievement.
54.95

Fun School 3 CDTV
PAC
Animated, educational program found in the original Fun School but wth the speed and ease of use of the exciting Amiga CDTV.
69.95

Fun School 3 in French
PAC
Animated educational program found in Fun School 3, but in French. Reinforce foreign language teaching. Consists of three titles, under 5, 5 - 7, and 7 plus.
54.95

Henrietta's Book of Spells
PAC
Designed to help 7 - 14 year olds improve their spelling and vocabulary. Five sections with multiple skill levels. Word lists contained in the package are easily modified.
59.95

Hooray for Henrietta
PAC
Designed to help 5 - 12 year old to add, subtract, multiply and divide quickly and accurately. Each function has 8 skill levels, strongly features animation, graphics and sound.
59.95

Jara-Tava, the Isle of Fire
DFL
Classic adventure game involving pirates, volcanoes, hidden treasure, excitement and a plot to stretch the imagination of any middle primary child.
69.95

Junior Typist
PAC
Ages 8 - adult. Teaches children the correct hand and finger positions and drills them in letter, word and phrase typing.
59.95

Kadimakara: Creatures of the Dreaming
DFL
Explore the mists of prehistoric Australia and discover a past of incredible richness and variety. Information packed teachers guide as well as activity pages, reference pages and a guide to resources.
69.95

Katie's Farm
Introduce children to the computer and reinforce object/shape recognition, spatial relationships, eye/ hand co-ordination, cause and effect and story telling Grades Preschool - 1.
59.95

Kinderama
DFL
Includes five interactive programs to introduce young children to the Amiga.
59.95

Land of the Unicorn
DFL
Develop thinking and reasoning skills while building vocabularies at the same time. Variety of educational activities and interactive fantasy adventure game. Requires one megabyte. Grades 4 - 9.
59.95

LCL Micro English
PAC
Ages 12 up. Advanced, revisionary English language program including an audio tape to test responses to spoken English as well as written English.
49.95

LCL Micro Maths
PAC
Ages 12 up. Advanced mathematics program for the older student. Consists of 24 separate programs covering a diverse range of topics including Fractions, Percentages, Algebra, Polynomials and Binomials.
49.95

Let's Spell at Home
PAC
Ages 4 - 9. Teaches letter recognition and spelling with the help of computer graphics and speech synthesis. English version, French version also available.
49.95

Let's Spell at the Shops
PAC
Ages 4 - 9. Teaches letter recognition and spelling with the aid of graphics and speech synthesis. English version, French also available.
49.95

Let's Spell Out and About
PAC
Ages 4 - 9.
49.95

Magic Maths
PAC
Ages 4 - 8. Covers simple addition and subtractions. Mouse driven.
59.95

Magic Storybook
CMT

Magical Myths
DFL
Introduce children to Greek myths. Animated stories including Creation of the Gods, Pandora's Box and King Midas. Also includes over 600 reading comprehension and vocab. questions. Grades 2 - 6.
59.95

Math Blaster Plus
DFL
Contains five motivational learning activities covering 750 basic maths functions : Countdown, Ignition, Lift-off, Orbit, Blasternaut Game. Grades 1 - 6.
69.95

Math Talk
DFL
Member of Talking Notebook Series. Enter and solve your own math problems, complete assignments, prepare for tests, learn calculator skills and master the basic maths facts. Grades 1 - 6.
49.95

Math Talk Fraction
DFL
Help students master fractions, decimals and percentages. Four learning modules. Grades 3 - 9.
49.95

Math Wizard
DFL
Four educational games with animated graphics to make learning maths fun.
59.95

Math-a-Magician
DFL
Interactive maths program for learners of all ages. Helps students learn while challenging them to think by integrating different levels of difficulty into the program. Grades 1 - 6.
49.95

Maths Adventure
CMT
Five to adult.

Maths Mania
PAC
Covers multiplication and division and can be operated with the mouse for ease of use. Ages 8 - 12.
59.95

Maths Master
DTU
Maths educational package for Grades K to 6. Locally produced and observes arithmetic procedures used in Australian schools. Images by local graphic artist.
39.00

McGee
DFL
Easy way for children to become familiar with the computer by running the program themselves. Grades Preschool - 1.
59.95

Mega Maths
PAC
Step-by-step self tuition and revision mathematics course. Covers 24 topics including straight line geometry, polynomials, logarithms, trigonometry, tangents, binomial theory and more.
49.95

Micro French
PAC
Using a combination of computer programs and voice cassettes, Micro French is a complete tutorial package designed to introduce the French language. Covers written and also punctuation and comprehension.
49.95

Mix and Match
PAC
Helps develop essential pre-reading skills. Uses pictures, familiar shapes and specially drawn letters and numbers, the program is designed to develop recognition, visual recall, discrimination and memory.
59.95

Mixed Up Mother Goose
OZI
Mother Goose takes children on an adventure to find her mixed-up rhymes and restore them back to normal. Comes with written and visual clues, easy-to-use joystick or keyboard controls. Includes full colour map.
49.95

Mosaic
DFL
Simple picture making program. Create or design your own, save picture to disk or print out. Grades K - 2.
39.95

My Paint
DFL
Includes 28 drawings, animated icon menus, various brush modes, colour cycle effects, more colouring book disks available, sampled sounds for each picture mode.
69.95

My Paint Colouring Disks
DFL
Disk One is Alphabet Fun, consisting of a letter with a corresponding drawing and accompanying digitised speech. Disk Two is Graphics, with Majelix a reading method based on phonics and sight reading.
29.95

Picture Book
DFL
Create stories in words and pictures. For Grades 1 - 6.
39.95

Primary Maths
PAC
Covers from 3rd class to secondary school. Topics include simple addition/subtraction and number recognition through to percentages, fractions and algebra.
49.95

Puzzle Book 1
PAC
Presents a set of six different puzzles designed to test logic, planning, mental arithmetic, spatial cognisance (mazes) and more. Features graphics and is suitable for all ages.
49.95

Puzzle Book 2
PAC
Presents a set of six different puzzles designed to test logic, planning, mental arithmetic, spatial cognisance (mazes) and more. Features graphics and is suitable for all ages.
49.95

Puzzle Storybook
OZI
49.95

Read & Rhyme
DFL
Four interactive learning activities, Rhyming Rockets, Flying Saucer, Alpha Blast and Rhyming Challenge.
59.95

Read-A-Rama
DFL
Contains five programs : Word-a-Rama, Read-a-Rama, Spell-a-Rama, Read and Remember, and Spell and Remember. Grades 1 - 3.
59.95

Rhyming Notebook
OZI
49.95

Robot Readers
DFL
Built-in word games and beautiful illustrations hold attention and promote early reading skills, vocabulary and word recognition. Titles include Chicken Little, Aesop's Fables, Little Red Hen, 3 Little Pigs and more
39.95

Rody and Mastico II
PAC
Help Rody and robot Mastico to rescue Father Christmas. Use logic and forward thinking to plan their way thru the game. Colour in the graphics which can be printed out if desired.
39.95

Rody and Mastico
PAC
Help Rody and robot Mastico journey to the Land of a Thousand Colours and rescue the Star. Use logic and reasoning to solve the questions, colour in the pictures and print them out. Multiple difficulty levels.
39.95

Sesame Street Triple Pack
CMT
Includes Letters for You, Numbers Count and Opposites Attract.

SimAnt
CMT

SimCity
DFL
Simulation strategy without violence. Loaded with animation and details sound effects. Choose from an unlimited number of different cities.
79.95

SimCity Graphics Sets 1 & 2
DFL
Set One includes Ancient Asia, Medieval Times and Wild West. Set Two includes Future USA, Future Europe and Moon Colony.
59.95

SimCity Terrain Editor
DFL
Custom design landforms for use with SimCity.
34.95

SimEarth
CMT

Smooth Talker
DFL
Speech synthesizer that converts English text, numbers into high quality, natural sounding speech.
49.95

Space Maths
PAC
This program reinforces and teaches mathematical principles while the user enjoys an interactive game.
49.95

Speed Read
PAC
99.95

Spell-A-Saurus
DFL
Uses multi-colour graphics and unlimited speech to teach spelling. Move at the

child's pace while entering spelling lists and playing four fun and challenging word games. Hear words spoken. Grades K-6.

59.95

Spellbound
DFL
Combines animation, graphics, music and digitised speech to create a fun learning atmosphere. Games are designed to drill and teach sight recognition skills.

59.95

Speller Bee
DFL
Incorporates speech into software for the purpose of improving skills. Features customisable student or parent entered spelling lists. Grades 1 - 9.

54.95

Tales from the Arabian Nights
DFL
Three stores with animated graphics : "Aladdin's Lamp", "The Ebony Horse" and "Ali Baba". Enhance reading comprehension, creative writing and language art skills. Grades 2 - 6.

59.95

The Logic Master
DFL
Aims to develop high-level thinking skills through the introduction of a broad variety of analogy and number series activities.

69.95

The Puzzle Storybook
DFL
Design pictures, turn them into puzzles to solve and write stories to publish. Unlimited text to speech and unlimited possibilities, children create their own tools for discovery. Grades K - 3.

49.95

The Rhyming Notebook
DFL
Quick access to an extensive rhyming dictionary.

49.95

The Three Bears
PAC
Children must use logic, forward thinking and planning to achieve a solution to this fairy tale based graphic adventure. Ages 5 - 10.

59.95

The Word Master
DFL
Includes four educational activities designed to build word power skills: Vocabulary Test, Master's Review, Vocabulary Challenge and Master's Maze.

59.95

Things to do With Words
PAC
Show children how words can be used in different situations. The three part program shows anagrams, "hidden words" and jumbled sentences.

39.95

Typing Tutor with Word Invaders
PAC

49.95

Uncle D's ConSoundTration
DFL
Concentration adapted to teach anything from numbers to animal sounds.

39.95

Where in Europe is Carmen San Diego
DFL
Travel through 34 European countries learning about geography, culture and history. Includes Rand McNally Concise Atlas of Europe and User's Manual.

79.95

Where in the USA is Carmen San Diego
DFL
Includes Fodor's USA travel guide.

79.95

Where in the World is Carmen San Diego
DFL
Chase Carmen and her gang all over the globe as you decipher clues using your Crime Computer and your copy of The World Almanac. Along the way, pick up interesting information on geography, history and culture.

79.95

Where in Time is Carmen San Diego
DFL
Spans the centuries from 400-1950 AD and track Carmen across 14 countries.

79.95

Word Hunt
DFL
Designed to improve reading and comprehension using a passage of text that has some words missing and the children use contextual clues to replace words. Grades 1 - 6.

49.95

WordPerfect Classroom Packs
SWA
Includes manual, licence and templates. For 10 students - $469, 20 students $630, 30 students - $770.

World Atlas 2.0
CMT
Direct access to information and details on more than 170 countries plus 50 US States. Discover history, population, language and customs as well as Earth facts and information about time sectors and more.

FONTS

Pro Video Alternate Font Set 1
CMT
Broadcast quality fonts. Only for Pro Video Plus or Pro Video CGI. Showtime, Competition, Bulletin and Future.

Pro Video Alternate Font Set 2
CMT
Broadcast quality fonts for Pro Video CGI or Pro Video Plus. Encore, Pacific, Europa and Computer.

Pro Video Alternate Font Set 3
CMT
Broadcast quality fonts for Pro Video CGI or Pro Video Plus. Coup, Electric, Fancy and Tubular.

Pro Video Alternate Font Set 4
CMT
Broadcast quality fonts for Pro Video CGI or Pro Video Plus. Headline, Nova, Optic and Network.

ProWrite Pro Fonts 1
CMT
Font collection for use with ProWrite V2.0. Ten professional fonts.

ProWrite Pro Fonts 2
CMT
Font collection for use with ProWrite V2.0, 27 Decorative fonts and Dingbats.

Zuma Fonts Set 1 (1 - 3)
CMT
Video presentation graphics. Each contains three different typestyles ranging in size from 20 to 100 points bitmapped typefonts for use with any IFF compatible program which uses Amiga fonts. Req 512k.

Zuma Fonts Set 2 (4 - 6)
CMT

Zuma Fonts Vol 4
CMT
Video presentation graphics. Each volume contains three different typestyles ranging in size from 20 to 100 points. Deco, Divine and Draft.

Zuma Fonts Vol 3
CMT
Video presentation graphics. Each volume contains three different typestyles ranging in size from 20 to 100 points. Coop, Script and Fast.

Zuma Fonts Vol 2
CMT
Video presentation graphics. Each volume contains three different typestyles ranging in size from 20 to 100 points. Euro, Stencil and Chelt.

GRAPHICS

Art Expression
CMT
Full featured outline illustration program. Create complex, artistic illustrations that can be scaled and used at any size without quality loss.

Art Pak #1
CMT

CAPS Master Station
CCS

2189.00

Deluxe Paint III
ECP
All the expected functions plus wrap fills, EHB shadow painting, faster perspective, powerful animation operation with all normal/special drawing tools.

99.95

Deluxe Paint IV
ECP
In addition to DPIII, version IV includes morphing, HAM support, improved MOVE requestors and a complete new manual. There's also a WB2.0 look and feel.

199.95

Demo Maker
PAC
No programming knowledge is required to create demos. All selections are chosen from menus, and all speeds, rotations and effects are altered by overtyping default values. Can be used with a genlock.

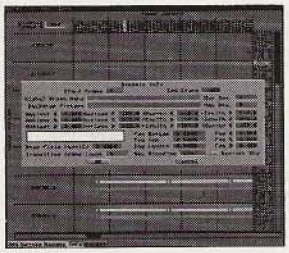
69.95

Fine Print
CMT
Multiple gray shade print program works with most dot matrix printers. Makes highly detailed prints with true shades of gray, makes near photograph quality prints, postage stamp and mural size prints.

Graphics Starter Kit - Aegis
CMT
Includes Animator, Images, Draw, Artpak

1 and Arazok's Tomb. Entry level animation package. Excellent value for money.

Imagine
CMT
24-bit rendering techniques which allow Amiga owners to compete in the world of professional animations. Next generation in rendering animation systems for the Amiga.



Interior Design Disk - Turbo Silver
CMT

Lights! Camera! Action!
CMT
Allows the combination of animations, IFF pictures, sounds and music.

Lunar Construction Kit
CMT
Create your own scenes of lunar landscapes, asteroids and stars with high quality full colour images.

Map Master
CMT
For Imagine

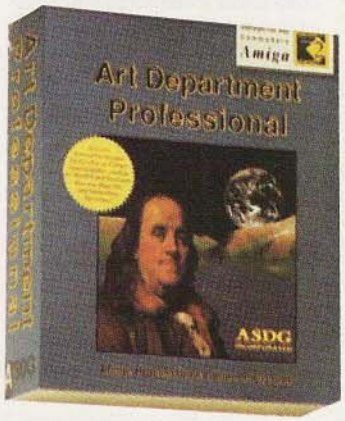
PaintMaster
CCS

Pixmate
CMT
Image processing and enhancement tools. Features space age, image enhancement techniques developed for NASA. Performs over 3,000 special effects.

Scapes
DFL
Two sets. Valles Marineris - 88 landscapes on 6 disks from NASA & US Mars spacecraft surveys of the planet. California Set #1 - 68 landscapes on 6 disks from US Geological Survey data.
129.95

Spectracolour HAM-E
CMT

The Art Department
DTU
Full image processing in up to 24-bit colour. Colour separation, GAMMA correction, digital scaling, swap between screen resolutions. Handles most picture format including A-HAM. Various file loaders available.
119.00



The Art Department TIFF Loader
DTU
73.00

The Art Department Targa Loader
DTU
73.00

The Art Department Rendition Loader
DTU
68.00

The Art Department GIFF Loader
DTU
66.00

Turbo Silver
CMT
Complete ray tracing and solid model rendering engine and 3D editor to use in the creation of photo realistic images and animations. Complete control of the world and camera are part of the function set.

Vidi Amiga
PAC
High speed, high accuracy framegrabber. Take a video image from a VCR, camera or any video source in REAL TIME, no pausing and grabs in 16 shades of grey. Pack includes VidiChrome colourizing software free.
399.00

Vista
DFL
Landscape simulation software, a collection of virtual realities. Features easy to use point and click interface, user controlled creation of rivers/lakes, saves as std IFF files, sound. Requires one megabyte.
149.95

A - Max II - *Macintosh emulator*

VistaPro
DFL
Creates beautiful painting-like views and animations of real places. Incorporates many features asked for by users but which could not be incorporated in the original one meg Vista. Requires 3.5 megabytes.
229.95

HARDWARE

1084S - Stereo Monitor
CBM
RGB and Composite Video Inputs, Stereo Sound
499.00

1930 VGA Monitor
CBM
585.00

1960 Multisync Monitor
CBM
885.00

256K x 8 1Mb Chip DRAM Pack - Baseboard
CMT

256K x 8 1Mb Chip Pack for EXP8000+
CMT

3.5" Internal Drive for A500
MAT
Full kit with long button.
199.00

3.5" Internal Drive for A2000
MAT
199.00

4 Way Joystick Adaptor
CMT
Enables four joysticks to be connected simultaneously for games which support four players.

5.25" External Drive
MAT
289.00

512Kb Internal RAM for A500
MAT
89.00

68040 Accelerator
CCS
Complete with four megabytes of 32bit RAM 28Mhz 68040 Accelerator card
3740.00

A-Max II
DTU
Employs hardware and software to emulate a Mac. Requires Mac ROMS. External Mac drive recommended. No AppleTalk Support. Uses Amiga parallel/serial. Software Only.
TBA

A-Max II Plus
DTU
New release of A-Max due early 1992. Compatible with Mac System 7.0 and System 6.xx. Able to use Amiga drives directly to read/write Mac disks. Requires expansion slot A2000/A3000 or A500 with expansion chassis.
TBA

A-Max II ROMS
DTU
ROMS for A-Max II.
TBA

A.M.A.S. Sound Digitizer
CMT
Advanced MIDI and sampler. Suit A500/2000

A1011 3.5" External Floppy Drive
CBM
189.00

A2000 GVP RAM8/ (2mb)
PP
8Mb RAM expansion for the A2000. Autoconfigs with 2, 4 6 or 8Mb SIMM RAM fitted.
442.00

A3000 68040 Accelerator Card
CMT
0K RAM

A500 2Mb RAM Board wth 1Mb
MAT
299.00

A500 2Mb RAM Board wth 2Mb
MAT
399.00

A500 Base System
CBM
799.00

A501 512kb Expansion/Clock
CBM
99.00

A590 20Mb Hard Drive
CBM
699.00

A620 Comp. Vide/RF Modulator
CBM

Acre AGS-20
ACI
External composite, variable colour key. Analogue/digital switch, dissolve, override key switch. Atari or Amiga RGB monitor connection. BNC connectors.
895.00

Amiga 1352 Mouse
CBM
57.00

Amiga 20Meg Floptical
DTU
Internal and external version available. Combines optical tracking with magnetic media to obtain high density storage on special floppy disks.
TBA

Amiga External Disk Drive
CMT
External disk drive.

Amiga Hand Scanner
MAT
Hand held 400 DPI black and white scanner. Includes touchup software.
399.95

Amiga M4 Mouse
PAC
Specifically designed mouse to withstand constant handing. Uses brass rollers to eliminate the rusting problem common on other mice.
49.95

Amiga Mouse
MAT
39.95

Amiga Optical Mouse
MAT
99.00

Amiga Power Supply
CBM
97.50

AmigaNet
GPT
Industry standard Ethernet network for Amiga 500 and Amiga 2000. True peer to peer networking. A500 = $700.00 (ex-tax), A2000 = $900.00 (ex-tax).

ATonce-Plus
FNH
This 80286/16 emulator will fit the 500 and the 500 Plus and the 2000. No additional adapters are required
499.00

Amiga 500 - *Base System*

AXRAM-4
GSO
Internal memory board with clock for the A500. Supports 2meg of Chip RAM when installed with the super fat Agnus. Available in 0, 2 or 4 meg configurations. 0 meg = $195, 2 meg = $345, 4 meg = $495.

Barcode Reader
GPT
Barcode reader for Amiga multimedia applications.

CDTV Player & Bonus Titles
CBM
1,599.00

ColourBurst
MAS
24-bit, for all Amigas, plugs into RGB port. Full RGB output, 16 million colours. Supports major paint programs.
CALL

Crystal Sound
MAS
Ultra low noise, crystal locked, jitter free stereo audio digitiser. Features sample rates up to 70k in stereo, dual AD converters, dual mic and line inputs with level adjust. Perfect Sound compatibility.
CALL

D'Droid
GSO
Small motor to control the DigiView colour wheel. Fully compatible with the DigiView DigiDroid.
85.00

D'Fixer
GSO
Small hardware interface that gets rid of the 'herringbone' pattern that is present when using a home colour video camera with the DigiView digitisers.
79.00

Dataflyer SCSI Interface for A2000/3000
CMT

DCTV (PAL)
PP
Display, digitise and animate 24-bit images in real time on stock Amiga model. Includes paint program and examples images. Connects to video port, parallel port and a composite monitor (1084 suitable)
1299.00

Digi-Droid
OZI
Rotates Digi-View colour wheel with control direct from Digiview software. Connect to joystick port.
159.00

Digital Sound Studio
PP
8-bit sound recording, editing and processing. Software and hardware included.
199.00

Double Talk A2000/3000
CMT
A full AppleTalk Network system allowing Amiga and Macintosh computers to share information and resources or only Amiga Network to operate at double speed. Also available for the A500.

Dr. T's Phantom
CMT
SMPTE Sync.

Dual Serial Board
DTU
By ASDG. Additional two highspeed serial ports for the Amiga. Allows use of all serial ports simultaneously. Fully compatible "serial device" driver. DOS handlers provided to allow control over expansion serial ports.
399.00

EXP8000+ RAM Expansion
CMT
To 9Mb. 2Mb Populated

Fireball A2000
MAS
True DMA SCSI controller/Hard Card. Auto-boots, auto-mounts.
CALL

Flash 2000
MAS
SCSI/RAM card which allows you to add a high performance SCSI controller, drive and other SCSI devices, and 8mb or RAM using only one slot. Two versions - 8 bit economy and 16 bit turbo model.
299.00

Flicker Master
CMT
Works with all Amiga models, greatly reduces interlace flicker. Attaches easily to monitor and improves control in all resolutions. Hi-res flicker 14" screen filter

Frame Grabber (PAL)
CMT
Realtime.

Game Controller I/R
CBM
CALL

Genius GM-7E Mouse
PAC
One of the world's largest manufacturers of mice, Genius, has developed this attractively styled, solidly built and eco-

nomical mouse.

39.95

Genlock Card
CBM

CALL

Golden Gate
FNH

A 386SX based PC/At emulator developed by Vortex that will convert an Amiga 2000/3000 into a 386SX compatible. Designed as a bridgeboard that closes the gap between Zorro II slot and the 16 bit ISA-Slot.

Golden Image Hand Scanner
CMR

Hand scanner with touchup software, black and white or gray scale from 100 dpi to 400 dpi, will save files in multiple formats.

399.00

Golden Image Master 3A-D
CMR

Three and a half inch drive with track display.

199.00

Golden Image Master 3A
CMR

Three and a half inch floppy drive.

159.00

Golden Image RC2000 RAM Card
CMR

A2000 internal 2 - 8mb RAM card with 2mb on board. Uses 1mb x 1 chip to upgrade.

449.00

Golden Image RC1000 RAM Card
CMR

A500 external 2 - 4mb RAM card with 2mb of auto configure RAM on board. Upgradable to 4mb and can be piggybacked to give total of 8mb (plus 1mb internal). Looks like a harddrive, and will work on some A1000's.

329.00

GP Touch
GPT

Touch screen driver software for MicroTouch touch screens. Emulates the mouse including access to menus. Includes intuitionised Touch Screen Preferences prog. Fully configurable with three operational modes.

200.00

GVP G-Force 040
PP

28Mhz 68040 Accelerator for the A3000.

CALL

GVP Series II Accelerator
PP

Includes a 68030 CPU, 68882 FPU, 1 - 16 Mb of 32-bit wide RA and a built-in autobooting high performance SCSI hard disk controller. Also available with 52/ 105/ 170 Quantum SCSI. Other options also available.

1,265.00

GVP Series II SCSI HD500 + 8Mb RAM Controller
PP

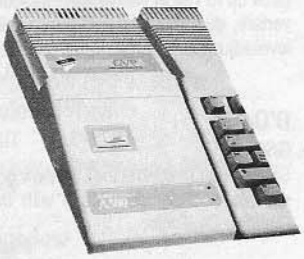
Same specs as for the SII A2000 but for the A500 and with GVP custom 'mini-slot' expansion port. A500-HD/ 52Q & A500-HD/105Q.

CALL

GVP Series II SCSI Hard Card + 8Mb RAM
PP

With Controller. High performance A2000 SCSI Controller, 8mb RAM expansion and hard card. Supports any SCSI device under the sun including tape drives, removable hard disks, CD ROMS and optical drives.

CALL



GVP/PC286 16Mhz Emulator for A500 HD
PP

Plugs into 'mini-slot' of GVP's A500HD unit.

699.00

Harlequin 1500
CCS

3720.00

Harlequin 2000
CCS

3880.00

Harlequin 4000
CCS

4380.00

Hitachi HV720 (PAL) CCTV Camera
CMT

Sixteen millimetre manual lens. For use with DigiView.

ImageMaster
CMT

Imagic - Modules 1 & 2
CCS

To suit VD2002/VD2020

3525.00

Imagic Module 1
CCS

To suit VD2002/VD2020

1955.00

Imagic Module 2
CCS

To suit VD2002/VD2020

1955.00

IMG Scan
PAC

Attaches to printer head and a set of optical fibres "read" whatever image is fed through the printer. Images can be saved in IFF format for use in other programs. Available for 500/2000 and 1000.

299.00

Impact Vision-24 PAL (PVA)
PP

Multi functional video adaptor for the A3000 and A2000 IV-24 plus design software.

3,000.00

Keyboard I/R
CBM

CALL

Kickboard Plus
UNI

Suits A500/A2000, especially suited for A500 owners with 68000 based add-ons. Includes 3 position switch, logic chip control protects ROMS and Gary chip, easy plug in fitting.

59.95

M.A.S.T. 5.25" External Drive
MAS

CALL

M.A.S.T. 68000 Accelerator
MAS

Runs at 25Mhz.

CALL

M.A.S.T. CD ROM
MAS

Over 600mb Toshiba mechanism inside MAST's own casing. Power supply and software included.

CALL

M.A.S.T. Removable Hard Drive
MAS

44mb, Syquest or Ricoh mechanism in MAST's own casing. Twelve month warranty.

CALL

Master 3A
CMT

External disk drive for use with A500 only.

Microbotics .5 Mb board for A500
PP

Microbotics .5 Mb (21 and over) call for price.

75.00

Micromegs
MAS

Alternative to A501. 512K ram and battery backed clock

Microtouch Plus NEX 3D
GPT

Includes monitor.

3100.00

MicroTouch Touch Screen
GPT

Industrial quality "MicroTouch" (c) clear glass capacitive touch screens for any Amiga monitor. Provides serial output. Price ex-tax, without monitor.

1728.00

Minimegs
MAS

2 Megabytes of external RAM for A500/ A1000. Auto con- figure, low power, 1 Meg DRAMs, RAM tachometer, auto configure LED, compatible with A501.

Minimegs A500/A1000
MAS

2mb external memory. FAst RAM, Zero wait states, autoconfigures. Also available in 8 mb.

CALL

Mouse I/R
CBM

CALL

Octoplus A2000
MAS

0 mb internal memory. Fast RAM, zero wait states, auto configures. Twelve month warranty.

CALL

Parallel Printer Cable
CBM

24.00

Perfect Sound V3.0 A500/ A2000
CMT

A two channel stereo audio digitiser with complete sound editing software and library of pre-recorded sounds. Compat-

ible with most musical programs.

Personal Memory Card
CBM
CALL

Pocket AMI
MAT
Portable MIDI unit.

Portable SCSI Interface
MAS
Suites A500, A1000, A2000, and A3000. Plugs into parallel port, pass thru for seven SCSI devices.
CALL

Rendale A8806
GPT
Professional quality genlock suitable for videodisc and multimedia applications. Professional RGB and composite video out, extensive software control including chromakey on any of 8 colours, genkill.
2200.00

RocHard External Disk Drive
MAT
External hard drive for the A500. Forty megabytes upgrade to 2, 4 8 megabytes.
799.00

RocLite 3.5" External Drive
MAT
Also available in black $179.00.
169.00

ROM Switcher
GSO
Small circuit card that allows both Workbench 1.3 and the new 2.0 ROMS to be installed. Switch selectable.

Sally
CCS
Realtime 24 bit buffer. Base unit stores 1.5s of 24 bit video, expandable to 8.8s.

SCRAM 2000/8
MMT
0 meg. 2 meg - $449, 4 meg - $599, 8 meg - $899.
299.00

SCRAM 500
MMT
0 meg. 2 meg - $449, 4 meg - $599, 8 meg - $899.
349.00

SCRAM/16
MMT
0 meg. 2 meg - $499, 4 meg - $649, 8 meg - $949.
399.00

SCSI Card
CBM
CALL

Series II A2000-SCSI Mounting Bracket
PP
50.00

Sharp JX-100 Scanner (with s/w)
DTU
Sophisticated portable colour scanner giving 24-bit scans at up to 200 dpi. Works with bundled Scanlab software.
1490.00

Sharp JX-320 Scanner
DTU
Includes GPIB connector and requires Professional Scanlab. A4 format flat bed colour scanner. 24 bit scans, up to 300 dpi.
2643.00

Sharp JX-450 Scanner
DTU
Requires Professional Scanlab. A3 format flat bed colour scanner. 24 bit scans, up to 300 dpi.
8795.00

Sharp JX-600 Scanner
DTU
Requires Professional Scanlab.
22595.00

Sharp JX-730 Colour Inkjet Printer
DTU
Colour inkjet printer. Sophisticated technology with self cleaning nozzles. Individually replaceable colour refills. 180 dpi in bright colour.
3073.50

SIMM Memory for GVP SCSI/ RAM Controllers
PP
$188.00 inc. per 2mb.
188.00

Sound Master Plus
CMT
Digitiser, includes AudioMaster III.

Stereo Master
CMT

Stereo Speakers
CBM
72.00

SyQuest Removable Hard Disks
PP
44mb or 88mb units. Will connect to all GVP SCSI controllers. Fast reliable backup and extra storage solution.
CALL

TC200 Transcoder
FRD
To convert composite to Y-C to composite. This enables the use of S-VHS equipment with existing composite recorders.

The Answer
GSO
Interface your Amiga sound output to the telephone line. When coupled with a sound sampler, allows full answering machine functions. All Australian product.
145.00

The Answer Plus
GSO
As The Answer but packaged with Audio Engineer Junior.
299.00

The Brush
MAT
Mouse device that is held like a pen, with DPaint II.
79.95

Tiny Tiger II
MAS
Portable SCSI hard drive, 45mb, 90mb, 136mb and 182mb. Slimline.
CALL

Track Ball Controller I/R
CBM
CALL

Twin Drive
MAS
Two 3.5" drives in slimline case. Same features as the Unidrive.
CALL

Ultraslim 3.5" External Drive
MAT
159.00

Unidrive
MAS
Slimline 3.5" no-click drive, pass thru, on/off switch. Upgradable to Enhanced Unidrive, 12 month warranty.
CALL

Unidrive Enhanced
MAS
Slimline 3.5" drive, track LED display, hardware virus protection.
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INTEGRATED

All-in-One
DFL
Allows you to write, paint, create music and play games. Consistent easy to use graphical interface and concise pull-down menus. Includes WRITE, PAINT, MUSIC, and Silhouette, Bouncer-Shaker and Intrigue.
99.95

Gold Disk Office
DFL
Turns your Amiga into a fully integrated, easy-to-use and highly productive office. Includes everything you need for word processing, database management, spreadsheet calculations and business graphics. Needs 1Mb.
399.95

Media Station
CMT
Comprises Digi-View Gold 4.0, Digi-Paint and Elan Performer.
339.00

PowerWorks
DFL
Includes three separate programs in one package. Maxi- Plan Plus, KindWords and InfoFile.
299.95

JOYSTICK

CG200 Joystick
PAC
Microswitch only. Suitable for Commodore 64, Amstrad CPC, Atari and Amiga.
16.95

CG220AQ Joystick
PAC
Autofire and microswitch. Suitable for Commodore 64, Amstrad CPC, Atari and Amiga.
19.95

Competition Pro Extra
CMT
With autofire.

Competition Pro Aussie
CMT
Green and gold.

Competition Pro 5000 Clear
CMT
Sturdy design, see-thru body and steel shaft with micro switches. Also has non-skid feet.

Competition Pro Glo-Red
CMT

Competition Pro Phantom
CMT
Black and white.

GX112 Joystick
PAC
Suitable for Commodore 64, Amstrad CPC, Atari and Amiga. Autofire.
9.95

Joystick Extension Cable
CMT
Three metre cable, wired for mouse.
9.95

RMT 118 Joystick
PAC
Suitable for Commodore 64, Amstrad CPC, Atari and Amiga
6.95

RMT120G Joystick
PAC
Autofire and microswitch. Suitable for Commodore 64, Amstrad CPC, Atari and Amiga.
19.95

RMT120R
PAC
Autofire and Microswitch. Suitable for Commodore 64, Amstrad CPC, Atari and Amiga.
19.95

Starblazer
MUL
Auto fire, top fire button.
44.95

Starcursor
MUL
Solid construction, 3 yr guarantee, 3 fire buttons, suction caps, quality switches. *Recommended!* (Split button and 8/4 way selector).
59.95

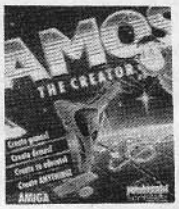
LANGUAGE

AC BASIC
CMT
Compiler, fast with graphics. Indexed documentation. Compatible with AmigaBASIC interpreter, run up to 50% faster.

AC Fortran
CMT
Implemented to ANSI 77 Fortran standard. Includes debugger, linker, library manager, runtime library, IEEE math and C interface.

AMOS 3D Extension
PAC
Generate outstanding 3D effects. Amos 3D adds more than 30 new commands to Amos BASIC that allow you to manipulate objects, animate objects or points or even animate surface details. Speeds up to 25 frames per second.
89.95

AMOS The Creator
PAC
Full development language for the Amiga, over 500 different commands using a simple BASIC like structure Animation, sound and graphics are handled with ease. On-line support to registered users thru Pac is free.
135.00



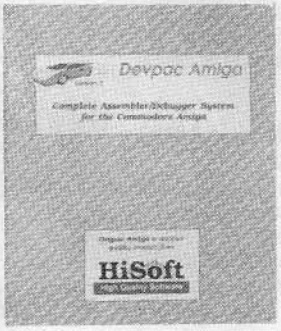
AREXX
CMT
Task intercommunication port - will be standard in WB1.4. Enables one application to send commands to another - integrate programs of a similar nature.

Assempro
PAC
Integrated assembler, disassembler, debugger & editor.
169.00

Blitz BASIC
MAS
Alternative fully integrated BASIC. Faster and includes built-in compiler. Commands to handle everything you need to make a top class game.
CALL

Blitz BASIC Professional
MAS
To be released approx. March 1992.
CALL

Devpak V2.0
CMT
Edit/Assemble/Debug. Assemble source up to 70,000 lines per minute, editor runs under intuition - menu/ keyboard control. Requires Kickstart 1.2 or later.



G.F.A. BASIC 3.5
CMT
Includes over 300 commands, inline C and assembler commands, extensive Amiga commands with sub-menus and built-in file requester and runtime interpreter.

G.F.A. BASIC Compiler
CMT

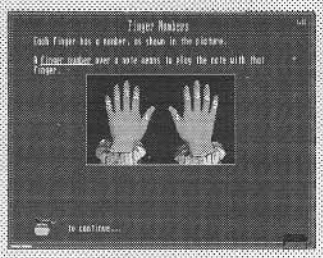
HiSoft BASIC
CMT
Editor/compiler, selective runtime routines, symbolic debugger. Allow compatible C or assembler code incorporated as functions/subroutines.

Miracle Piano System

MSP

Piano teaching system, keyboard and software.

699.00



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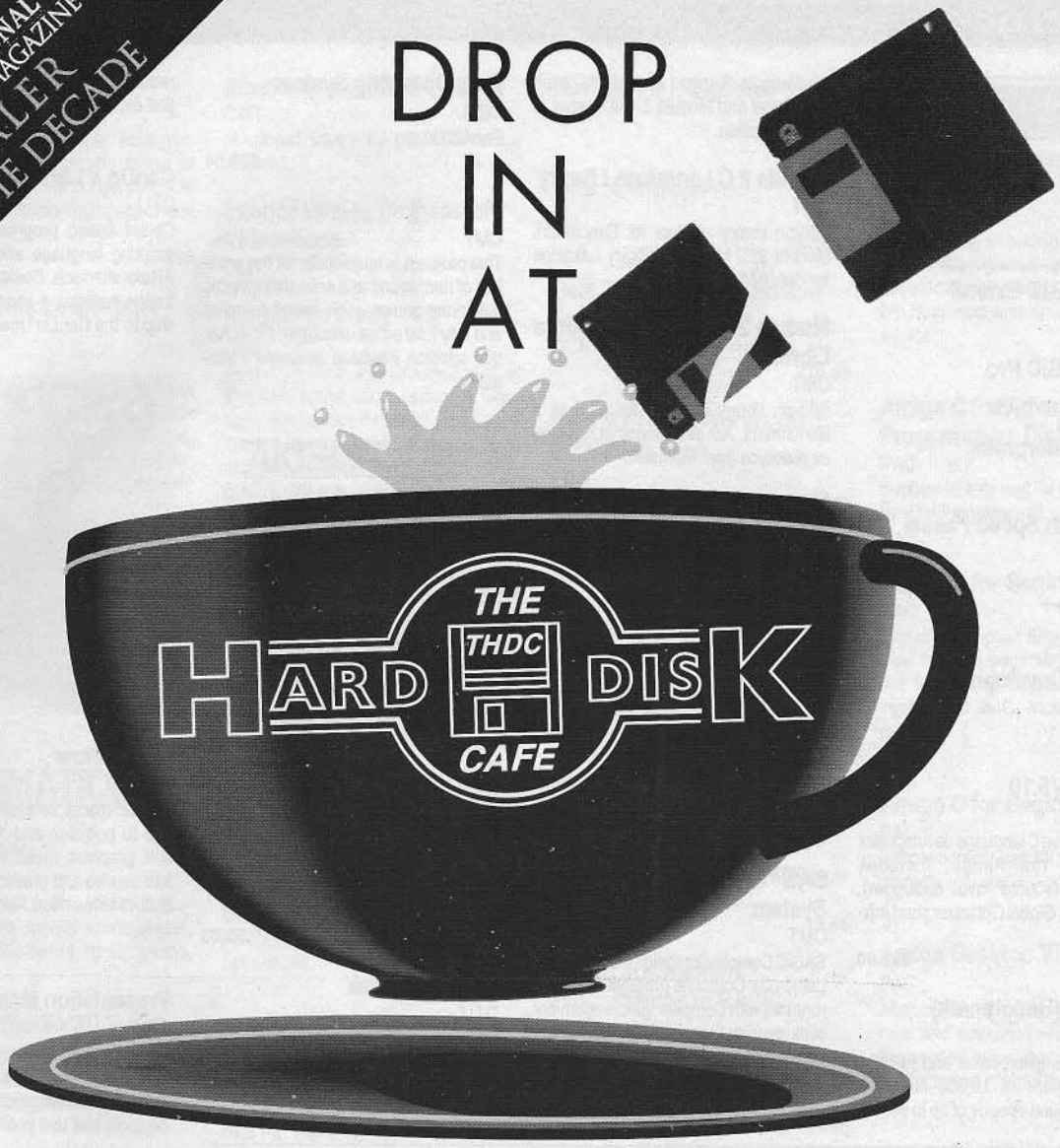

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HiSoft BASIC Extend
CMT

HiSoft BASIC Pro
CMT

HiSoft C Interpreter
CMT

HiSoft High Speed Pascal
CMT

Lattice C ++
CMT

Lattice C Development System
CMT

Lattice C V5.10
PAC
Comprehensive C language development system for the Amiga. Includes CodeProbe (source level debugger), Code Profiler, Global Optimizer plus Unix-like utilities.

399.00

Modula 2 (Benchmark)
CMT
Integrated compiler, linker and EMACS editor. Compiles at 10,000 lines per minute with burst speeds of up to 30,000 lines/minute. Support AmigaDOS, Intuition, Excel and Modula 2. 700 pages of documentation.

Modula 2 C Language Library
CMT
Add-on library product for Benchmark Modula 2. C language library functions for use in Modula 2.

Modula 2 IFF/Image Resource Library
CMT
Add-on library product for Modula 2 Benchmark. Access images at run-time as resource from Modula 2.

Modula 2 Simplified Library
CMT
Simplify creation of intuition screens, windows, gadgets and menus. Includes functions for double-buffered animation, bobs, sprites, speech, console and device.

Modula 2 Source Level Debugger
CMT
An interactive, mouse driven, source level debugger. Includes other advanced programming tools.

SAS "C" Development System
CMT
SAS/C Compiler for AmigaDOS (formerly Lattice C). Complete programming environment with Compiler, global optimizer, blink overlay linker, LSE screen editor, source level debugger, documentation and more.

Unix Operating System
CBM
For A3000.

599.00

Visionary
CMT
This program is specifically for the creation of text, sound and animated graphic adventure games. High-speed compiler and fully interactive debugger. From Aegis. Intuition interface available separately.

MULTIMEDIA

AmigaVision
CBM
Create interactive presentations for education and training. Also ideal for video titling. Various transitions between screens. Anim OPT 5 support. DBase compatible database.

199.00

CanDo Intro Pack
DTU
Tutorial intensive package designed to get new CanDo users up to speed as quickly as possible. Includes 7 CanDo decks on disk and a manual. Information on installation, tool-type settings, technical topics etc.

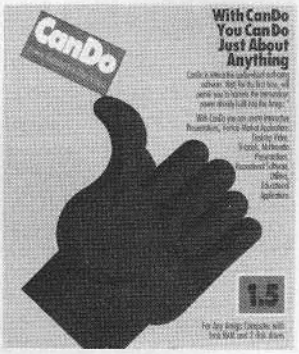
52.00

CanDo Pro-Pak
DTU
Examples of CanDo generated programs, called 'decks'. Includes freely redistributable IFF resources and utilities and extensions to CanDo.

52.00

CanDo V1.5/1.6
DTU
Object based programming. Powerful scripting language and well-integrated ARexx interface. Desktop Utilities registration includes a year's free membership to the CanDo User Group.

169.00



MediaShow
DFL
A multi-media sequencer which allows you to combine and sequence animation, graphics, music and sound effects into movies and presentations. Also has built-in video titler. Requires one megabyte.

125.95

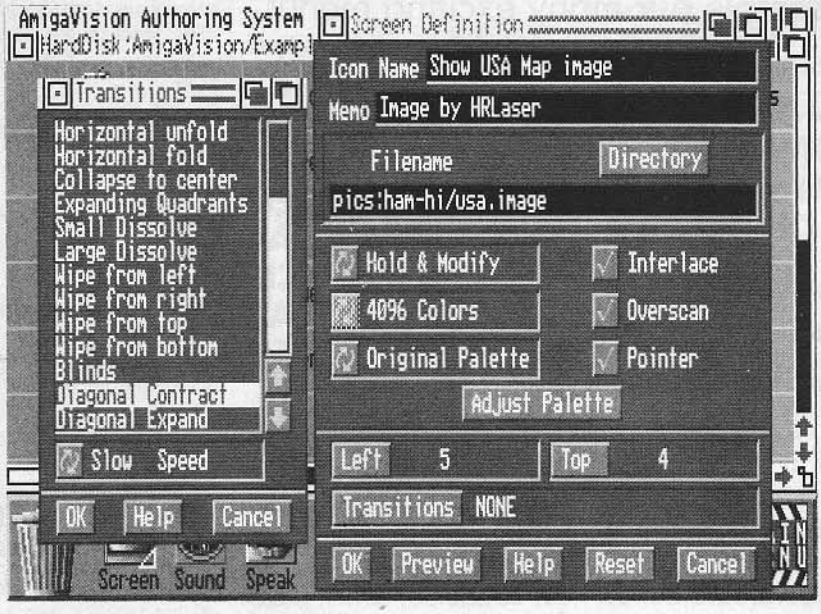
Presentation Master
CMT
Sequence presentation graphics, animation and assorted transitions to create full interactive presentations. Powerful drawing tools and text positioning power.

Scala
PP
Presentation and titling software. Includes 60 backgrounds, many fonts and 38 incredible video wipes and transitions.

490.00

Showmaker
dfl
Quickly & easily mix video animation, wipes, titles & multi-channel sound tracks.

529.95



AmigaVision - *Authoring System*

MUSIC

Alter Audio
CBM
Includes MIDI interface, DR T's Tiger Cub and necessary cables. MIDI keyboard suggested.
249.00

Audio Engineer
GSO
Sound sampling and editing software suite. Supports stereo or mono at sample rates of up to 56,000 sample per second. V2 supports 4 times oversampling, stretch/compress samples in time without affecting pitch.
99.00

Audio Engineer Gold
GSO
Bundled with a special version of Audio Engineer. A sampler card that installs inside either A2000/A3000 56,000 samples in stereo, dynamic range compression on recording/dynamic range expansion on playback.

Audio Engineer Plus
GSO
For the serious or professional user. Features printer pass-thru, MIC and line inputs and up to 56,000 sample per second rates in stereo. Packaged with Audio Engineer. For A1000/A500/A2000/A3000.
369.00

Audio Engineer Jnr
GSO
Audio Engineer packaged with mono sampler. Microphone and line inputs provided with electronic level control. For A1000 / A500 / A2000 / A3000 computers.
189.00

Audio Master IV
GSO
See entry for Audio Engineer. Audio Engineer is sold and marketed in the USA as Audio Master.

Bars&Pipes
DFL
Includes Pipeline, The Toolbox, The Sequencer, and The Editor. First icon-based, object-oriented musical composition environment. Requires one megabyte.
299.95

Bars&Pipes Add-on Series
DFL
Consists of five collections of Tools and Accessories to enhance Bars&Pipes. Includes MusicBox, The Internal Sounds Kit, Rules for Tools, MusicBox B, and The Multi-Media Kit.
79.95

Bars&Pipes Professional
DFL
Icon based, object oriented musical composition environment. Co-ordinate music with video, film, tape recorders and other computer applications. Reads and writes standard MIDI file format. Req. 1mb/MIDI interface.
549.95

CD Remix
CMT
Lets you take your favourite music CD and resequence pieces to make your own extended tracks/remixes. Icon driven language. Over 100 different samples are included.

D Audio
GPT
Plays stored audio sound direct from hard disk. Unlimited file sizes. Four channel selections plus other options. Supports AudioMaster sequences. Compatible with most Amiga authoring software.
50.00

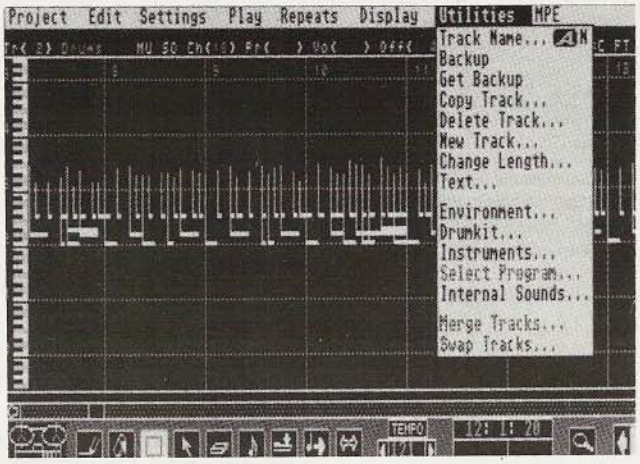
Deluxe Music Construction Set
ECP
Includes MIDI, cut and paste, on screen keyboard and print-out options. 15 IFF sampled sounds.
99.95

Dr. T's Copyist Apprentice
CMT
Print music and scores on a dot matrix or laser printer.

Dr. T's Copyist DTP
CMT
Full Postscript laser printer output of music scores.

Dr. T's ESQapade
CMT
Graphic editor/librarian for the ESQ-1 and SQ-80.

Dr. T's KCS Level II
CMT
Does everything of the basic program plus 16 more screens of algorithmic and global editing.



Dr. T's Tiger Cub - *Popular Midi music software*

Dr. T's Keyboard Control Sequencer V3.5
CMT
Plus Level II. Three modes of operation - track, open and song. Edit options include merge, echo, solo and mute. Controlled through screen-displayed tape recorder.

Dr. T's MIDI Recording Studio
CMT
Mouse activated. Use keyboard as well as true external MIDI devices as a musical keyboard. Mute and unmute tracks, cut, copy, paste or transpose, no print out.

AUDIO ENGINEER II ™

Professional Quality Amiga Sound Sampling and Editing Systems

PROUDLY MADE IN AUSTRALIA

No matter whether you are into programming games, doing live gigs or just creating the ultimate Amiga multimedia production, **AUDIO ENGINEER** is the tool you need. The worlds number one software package, coupled with superior quality hardware, allows you to create the ideal sound sample.

Audio Engineer Version 2

Now featuring:
- ★ 4 Times Oversampling
- ★ Digital Filtering
- ★ Time Compression/Expansion
- ★ Progress Meters
- ★ Real time Zoom/Telephoto
- ★ Audio DJ program

plus more....

AUDIO ENGINEER (s/w only) $99 AUDIO ENGINEER JUNIOR $189
AUDIO ENGINEER PLUS $369 (RRP)

GSOFT Pty Ltd
PO Box 59
Elizabeth SA 5114
Ph & Fax (08) 254 2261
ACN 007 060 728

Available from your dealer now
Dealer Enquiries Welcome

GSOFT Computer Products

Audio Engineer is a trademark of RamScan Software

Dr. T's Model A MIDI A500/ 2000
CMT

Dr. T's Music Mouse
CMT
Musical composition using the mouse. Internal sounds or MIDI data are created according to mouse movements. Ideal for beginners or for the experienced to improvise and explore.

Dr. T's Tiger Cub
CMT
A 12 track sequencer with realtime graphic editing and standard musical notation which can be printed out too. Optional MIDI output. For the beginner or semi-professional.

Dr. T's X-OR Editor
CMT

Harmoni
DFL
MIDI sequencer which allows you to create multiple tracks of MIDI music which you can edit, combine into songs and then replay on your MIDI keyboard.
149.95

Jam
CMT

Kawai Funlab Music System
KAW
Keyboard 61 note, built-in stereo speakers, 100 sounds, 100 rhythms. Software 5 track sequencer (allowing overdubbing and multitrack recording) with music notation display, lyric display, Compact MIDI interface.

MIDI Connector
DFL
MIDI interface which allows you to send and receive digital data. Chain several instruments together and use a simple MIDI sequencing program to play them all back at the same time.
99.95

Miracle Piano System
MSP
Piano teaching system, keyboard and software. - *See box on p54*
699.00

Quartet
CMT
With Quartet your Amiga becomes a four voice polyphonic synthesiser and recorder. Allows playback of up to four instruments simultaneously, makes four channel composition easy.

Sonix
CMT
Digital synthesizer supports eight MIDI voices, up to 32 channels, and IFF format, create, modify, edit. Save to disk or dump to printer as sheet music.

Sonix Soundtrax Vol. 1 & 2
CMT
Each volume contains two disks of songs crated with sampled instruments. Interacts with Sonix.

PRODUCTIVITY

3D Construction Kit
CMT

3D Professional
CMT
Fast, 3D polygonal rendering and animation. Also handles fractal landscapes, trees and clouds.

Business Card Maker
PAC
Graphic editor, mix text and graphics, printer support
69.95

Business Card Maker Blank Card Stock
PAC
29.95

Day by Day
PAC
Full calendar/diary/planner, sort appointments by date and time of day, urgent/ overdue notice boards, month/ week/ day planner, search facility, automatic reminders.
59.95

Hyperbook
DFL
Hyperbook is a Free-Form Application Generator and Information Manager. Create applications, presentation educational and training programs, interactive demos.
139.95

PROGRAMMING

Inovatools
DTU
A collection of over 30 subroutines for Amiga programmers to minimise Intuition programming effort and increase the variety of interface options Includes file requestor, pop-up menu, list handler and more.
129.00

Metascope
DTU
Application program debugger that provides a multi-window environment to observe and control the execution of your application program. Gives breakpoint to trace capabilities, full symbolic support and more.

Turbo Text
CMT
A text editor which allows you to customise the editor to any compiler including C, Pascal and Modula II. Macros, hex edit window, complete outlining, text templates, complete remapping of keyboard and menus etc.

SPREADSHEET

Advantage
DFL
Spreadsheet, database, presentation graphics program which includes ARexx support, macro commands, precise output control. Select from pre-configured 16 colour templates.
275.00

DG Calc
PAC
Menu/command driven, individually adjustable columns, integrates with other programs, windowing, 52 user defined variables, 9 programmable function keys.
89.95

Flipside
CMT
Prints spreadsheets of unlimited size. Sideways print utility.

MaxiPlan Plus
CMT
Includes a macro feature and additional utilities as well as features of MaxiPlan 500.

P-Stat
CMT
Interactive statistical data analysis package designed for marketing research and academic situations, offers over 50 statistical functions and 25 graph types, including animated charts. Power limited only by RAM.

TUTORIAL

Amiga Hard Drives
CCS
Tutorial videotape.
45.00

Animation Set - 1, 2 & 3
CCS
Tutorial videotape.
118.00

Colour Cycling
CCS
Tutorial videotape
45.00

Digitising
CCS
Tutorial videotape.
45.00

Mavis Beacon Teaches Typing
MSP
Lessons and games to teach typing.
69.95

Real 3D 1.4 Tutorial Tape
CCS
44.50

Video Graphics
CCS
Tutorial Video Tape.
45.00

UTILITY

3.5" Floppy Drive 720k Kit
CBM
165.00

Action Replay Mk II A500
PAC
Machine code monitor, assembler and disassembler, picture grabber, picture modifier, memory grabber, program saver and more.
249.00

Action Replay Mk II A2000
PAC
Machine code monitor, assembler and disassembler, picture grabber, picture

Amiga Action Replay - *screen capture hardware*

modifier, memory grabber, program saver and more.

269.00

Ami-Back 1.4
CMT
Hard disk backup utility. Will back-up and restore hard drive quickly and conveniently. Run on any Amiga running AmigaDOS 1.3 or 2.0. NTSC/PAL compatible.

Amiga Virus Protection Toolbox
PAC
Includes Boot Check, Recover, Change Control Checker, Check New. For all Amigas with Workbench 1.2 and 1.3.

AmigaDOS Tool Box
PAC
A collection of essential, powerful, and easy-to-use software tools for the user who wants to overcome some of the Amiga's drawbacks.

99.00

AMOS Compiler
PAC
Turns your Amos source code into fast machine code executable directly from the CLI or Workbench without requiring either the Amos libraries or Amos itself.

69.95

Art Department Professional Conv. Pack
DTU
Upgrade from The Art Department to Art Department Pro.

119.00

CAL Calender Maker
CMT
Create custom calendars. Print any size from wallet to wall. Accepts fonts or uses library provided. Set your own starting dates, accepts information from applications like NAG, plus via AREXX.

Canon BJ300/330 Printer Driver
GPT
Works for all Canon BJ series from BJ10 through BJ330. Supports printer densities up to 360 by 360 dpi. Compatible with PageStream and Professional Page. Special double density 360 x 360 mode for desktop publishing.

50.00

Canon FP510 Printer Driver
GPT
Amiga printer driver for Canon FP510 full colour ink-jet printer. Supports gamma correction of printed image for computer graphics, video capture and scanner input.

CAPE 68k Assembler
DTU
Version 2.5. Fast, fully, documented Amiga assembler environment. Includes linker, profiler and dis-assembler. Integrated editor. "Stop on error" and "assemble from buffer" functions.

119.00

CrossDOS 4.0
CMT
MS-DOS filing system. Read, write, format and copy MS-DOS or Atari disks with standard Amiga drives. Transparently access MS-DOS files from any application.

CrossDOS 5.0
DTU
MS-DOS filing system. Read, write, format and copy MS-DOS or Atari disks with standard Amiga drives. Transparently access MS-DOS files from any application. Version 5.0 Plus due early 1992.

84.00

Disk Mechanic
CMT

Diskmaster II
CMT
Excellent utility for file manipulation. Sits on own screen, two DIRs displayed, COPY, RENAME files. Format or DISKCOPY. View images, play samples. Easy to use.

DOS 2 DOS
CMT
File transfer. Transfers all file types from PC/MS-DOS to AmigaDOS and vice versa. Handles 3 1/2 and 5 1/4" formats.

Dunlap Utilities
CMT
Forty Workbench utility programs. Fix hard drive errors, recover deleted files, keyboard macros, file house- keeping utilities.

FACC II
DTU
Floppy disk accelerator. Intelligent disk caching for up to four floppy drives with dynamic control over buffers. Add/remove buffers at will via control panel or CLI. Faster and better than AddBuffers.

45.00

HyperHelpers
DTU
On-line DOS help. DOSHelp online AmigaDOS help (1.3 and 2.0). Run-N-Play, the "I wish" file requestor which runs programs, plays sounds etc., Launchpad, a small window on Workbench with a menu to run packages.

79.00

Image Finder
CMT
Finds graphic files by looking at thumbnails of the images in full colour or gray scale. Scans disk volume and/or directories for ILBM or ANIM files to create index. Browse through thumbnails before or after sort.

Interface Design Kit
CMT

Mac 2 DOS
CMT
Requires external Mac drive. Enables you to read and write Mac format disks. Various translation of ASCII possible, also transfers graphic files. Includes interface.

Power Windows
DTU
Create custom screens, multiple windows and more, then generate source code for installation in original programs.

119.00

PRT24
GPT
Prints Amiga 24-bit IFF graphics on the Canon FP510 full colour printer. Support for 256,000 colours per image. Video, scanner and computer generated image gamma correction.

Quarterback
CMT
HD Utility. A fast backup-20MB in 30 minutes or less. Handles files of unlimited length, subdirectories, and files per subdirectories. Select by file restoration.

Quarterback Tools
CMT
Maximizes the speed and reliability of hard disks and floppy disks by re-positioning files to optimum locations on the disk which eliminates file fragmentation and consolidates disk free space.

RX Tools
CMT
Tools for AREXX. Implement extensions for windows, gadgets, requesters and more. Full AREXX editor included.

Superback
DFL
Hard drive backup utility. Selectively copy any or all of the files and directories from your hard disk, RAM or network device onto floppy disk. Backs up 20 megabytes in 20 minutes. Restores data selectively.

99.95

TCP/IP Software
CBM

149.00

The Ambassador
DTU
Improves file transfer capability for both Bridgeboard and Amiga, provides transparent access from Amiga to MSDOS data as with CrossDOS, including Bridgeboard connected drives.

99.00

TurboPrint Professional
GSO
Printer enhancement and control program. Gives vast improvements in print quality with all Amiga programs. Superior control over scale, size, colour and dithering patterns and smoothing. Can also do colour separations.

140.00

X-Backup Professional
CMT

X-Copy Professional
CMT
Many new features; includes hard disk and file backup. Copies protected disks. Handles multiple drives. Verify option, good error detection and audible notification of finished copies.

WORD PROCESSING

BABY
CMT
1.4 million word Thesaurus. Spell check documents from wordprocessors with no spell check support.

Beckertext
PAC
Graphics and columns. Numerous styles & fonts, auto wordwrap, auto page numbering, auto hyphenation, auto table of contents & index generation. Spell check.

149.00

Cygnus Ed Professional
DTU
Fast and powerful text editor. For writer or programmer. Macro facility. Arexx port. File recovery. Cut & paste vertical blocks (columns). Autosave, printer function. Version 2.12. Multiple undo/redo.

129.00

Electric Thesaurus
DFL
Contains over 500,000 synonyms and offers concise definitions and includes its part-of-speech and a list of accurate synonyms in their properly inflected forms Utilises Roget's II Electronic Thesaurus database.

69.95

Excellence! 2.0
CMT
250 available fonts, 90,000+ word dictionary, Index and Table of Contents generator, Grammatical/Style checker, Thesaurus, Headers, Footers/Footnotes WYSIWYG and Postscript support.

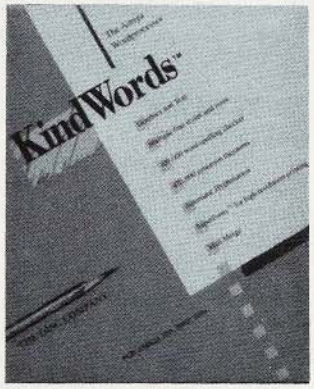
Fleet Check
CMT
Spell checker.

Flow
CMT
Database or outline processor. Idea processor. Assists in creating sales reports, school papers and novels, plan business strategies and schedule appointments.

Flow Lab Pack
CMT

KindWords
DFL
WYSIWYG wordprocessor that can print both graphics and text, 90,000 word spelling checker, selection of font sizes.

99.95



Pen Pal
DFL
Word processor, database, forms generator. Supports 4096 colours output and IFF pictures. Includes a 100,000 word spelling dictionary, search/replace and more.

229.95

Protext
PAC
Includes background printing and 45,000 word spelling checker and mail merge. Version 4.1 is much improved. Text based - a fast, solid editor.

199.00

ProWrite French Dictionary
CMT

ProWrite Lab Pack
CMT

ProWrite ProScript
CMT
Translates files created wth ProWrite into PostScript. Files can be printed on a PostScript compatible printer or saved to be printed later. Reduce or enlarge, mailmerge and control gray shades for graphics.

ProWrite V3.2
CMT
Generate proposals with charts, 95,000 word spelling checker, mailmerge, fast graphics printing. WYSIWYG Full postscript support, import IFF graphics. Workbench 2.0 style interface, AREXX support.

Quik-Write
CMT
Entry level wordprocessor. Advanced mail merge, spell checker with a 50,000 word dictionary, macros, AREXX port and automatically updates date and time markers. Complete control over printing and more.

Quik-Write Lab Pack
CMT

Scribble Platinum
OZI
WYSIWYG IFF graphic support. 104,000+word spelling checker, 470,000 thesaurus with definitions, multiple windows, cut and paste, mail merge.

239.95

Transwrite
DFL
Allows you to quickly generate and edit lengthy or multiple documents. Built-in 90,000 word TransSpell spell-checker, automatic index and mail merge, search and replace, cut, copy, paste. Use with Pro Page.

95.00

WordPerfect Library 2.0
SWA
Helps organise appointments, notes, files and programs Includes Calendar, Notebook, Calculator, File Manager, Program Editor.

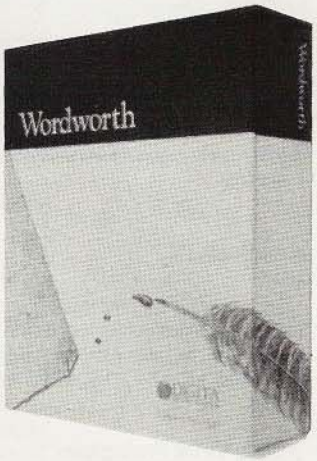
199.00

WordPerfect V4.1 English
SWA
Very full-featured program with drivers for almost any printer made. Ported from IBM and Amiga-ised. Speller and thesaurus included. Available with British dictionary. Book shelf style ring-bound manual.

469.00

WordWorth
PAC
Workbench 2.0 look-alike interface, complete range of document processing functions. Features Human Interface Protocol (HIP), 116,000 British spell checker, supports PAL displays, multiple fonts, graphic import.

299.00



VIDEO HARDWARE

Harlequin
CCS
RGB Genlock

1610.00

Minigen (PAL)Genlock
CMT
A500/A2000

Neriki CE100 PAL Colour Encoder
FRD
Amiga to composite or Y-C

474.00

Neriki Composite Desktop Genlock
FRD

1257.00

Neriki Dual Channel Pro Y-C Genlock
FRD
Features automatic detection and switching to dual cannel Y-C with full broadcast quality. Will operate with any model Amiga, self-powered from mains, simple front panel controls, full baudwidth encoding 600 line

1474.00

Neriki IBM Interface
FRD
130.00

Neriki Imagemaster Genlock
FRD
Options available including YUV
1700.00

Neriki PS100 Universal Power Supply
FRD
Companion for the range of Neriki Interface equipment.
84.00

Omni-Gen 702 PAL
CCS
3755.00

Omni-Gen 712 Y-C/PAL
CCS
5315.00

Omni-Gen 722 Component
CCS
7215.00

PAL Genlock
CCS
859.00

Pal/Y-C to RGB Converter
CCS

RGB to PAL/Y-C/YUV/YRB Transcoders
CCS

RocGen Genlock
MAT
299.00

RocGen Plus Genlock
MAT
399.00

Sirius Genlock
CCS
1999.00

Super VHS Adaptor Lead
PA
For Vidi RGB Splitter.
39.95

VD2001 - F/Buff, F/Grab, G/Lock
CCS
3499.00

VD2020 - F/Buff, F/Grab, G/Lock
CCS
Release due in February 1992, TMS 34020 based board.

Video Blender
CMT
Features video switching, lumakeying, genlocking, local colour generation in 16 million colours, video fading/wiping, and stereo audio mising. External, self contained unit with power supply.

Video Converter
CCS
Converts from Y-C and Composit to RGB
399.00

Vidi RGB Splitter
PA
Companion to Vidi and VidiChrome. Allows you to digitize in full HAM colour without using colour filters. k Grab a colour image in under one second, fully compatible with Digi-View.
299.00

VidTech VideoMaster
CCS
External SVHS and composite, PAL or NTSC. Disolve control bars, Wipe switches, RBG splitter for digitising. RGB processor, transcoding, internal sync, amiga RGB bypass, keyout.
2459.00

Y-C Genlock
CCS
1299.00
Y-C/RGB SplitterSplit Y-C video into R-G-B for slow scan digitising.
CBM
579.00

Distributors Key

AVT
Avtek Modems
Unit A 25 Paul St North
North Ryde NSW 2113
Tel (02) 888 5333

CCS
Color Computer Systems
18 Appleby Street
Balcatta WA 6021
Tel (09) 349 6492
Fax (09) 349 5155

CBM
Commodore Business Machines
67 Mars Road
Lane Cove NSW 2066
Tel (02) 417 7066 Customer Service
Tel (02) 427 4888 General

CMR
Computer Magic
44 Pascoe Vale Road
Moonee Ponds VIC 3039
Tel (03) 326 0133

CMA
Computermate
9 High Street
Mt. Kuringai NSW 2080
Tel (02) 457 8388

DFL
Dataflow
15 Merton Street
Zetland NSW 2017
Tel (02) 310 2020

DTU
Desktop Utilities
P.O Box 3052
Manuka ACT 2603
Tel (06) 239 6658
Fax (06) 239 6619

ECP
Electronic Arts
4/46 Smith Street
Southport QLD 4215
Tel (075) 911 388
Fax (075) 916 068

FNH
Fonhof Computer Supplies
64 Cross Street
Baulkham Hills NSW 2153
Tel (02) 639 7718
Fax (02) 639 5995

FRD
Fordray
PO Box 1265
Orange NSW 2800
Tel (063) 629 901
Fax (063) 628 675

GSO
G-Soft
P.O. Box 59
Elizabeth SA 5114
Tel (08) 254 2261

GPT
GP Software
21 Aloomba Road
Ashgrove QLD 4060
Tel (07) 366 1402

MAS
MAST
19 - 21 Buckland St
Broadway NSW 2007
Tel (02) 281 7411

MAT
Matrix
Unit 1021 Chester Street
Camperdown NSW 2050
Tel (02) 550 4688
Fax (02) 550 4663

MMT
MegaMicro Technology
PO Box 511
Bondi Junction NSW 2022
Tel (02) 980 6986
Fax (02) 363 1246

MSP
Mindscape
5/6 Gladstone Rd
Castle Hill NSW 2154
Tel (02) 899 2277
Fax (02) 899 2348

MUL
Multicoin
17 Wrights Place
Labrador
Gold Coast QLD 4215
Tel (075) 37 5711
Fax (075) 373 743

OPA
Opal Technology
PO Box 117
Castle Hill NSW 2154
Tel (02) 899 4322

OZI
Ozisoft
Level 3
61A Dunning Ave
Rosebery NSW
Tel (02) 313 6444

PAC
Pactronics
98 Carnarvon Street
Silverwater NSW
Tel (02) 748 4700
Fax (02) 748 4604

PP
Power Peripherals
1st Floor
257 Hawthorn Road
Caulfield North VIC 3161
Tel (03) 532 8553
Fax (03) 532 8556

SWA
Sourceware
Unit 1 6 - 8 George Place
Artarmon NSW 2064
Tel (02) 427 7999

UNI
Unitech Electronics
86 Tummel Place
St Andrews NSW 2566
Tel (02) 820 3555

PARAGON BBS 597 7477 LAURENCE 9575388

USER GROUPS

Around Australia many Amiga users have joined together to form user associations, clubs and groups. Following is a list of the active groups from which we regularly receive correspondence. These details may change from time to time - check your local computer store for details or call us (02 879 7455) to see if we have an update. User groups offer many services in return for a small annual membership fee. Many produce a bi-monthly newsletter with local news, product reviews and group activities listed. Some hold tutorials or workshops. Others run a bulletin board system, magazine or software library or help lines to more informed members. Many have vast collections of PD disks available at nominal rates to members.

Of course, there are always a few bad eggs out there, and it is known that a few user groups are heavily involved with the exchange of commercial software. This practice is illegal. It amounts to theft and is known as piracy - a nice word for a pastime that could put a stop to the wonderful flow of new products we see for the Amiga today. When you join a user group, be responsible, don't get involved with piracy. Federal authorities are cracking down on this area.

A.C.T.

Canberra Amiga Users Society Inc

PO Box 596
Canberra City ACT 2601
Director - Jonathan Bishop
Vice Director - Simon Tow
Secretary - Colin Ward
Treasurer - Trevor Raddatz
Meetings - 2nd Tuesday of each month at the City RSL, 13B Moore St in the Anzac Building. 7.30 pm. Details of the date and expected topic to be presented will be advertised in the Public Notices in the Canberra Times on the first Saturday of each month and in the Canberra Times "Fridge Door" the week of the meeting
BBS - Online 24hrs (06) 255 1469
Newsletter - BECAUSE

Canberra User Group ACT Inc

PO Box 409
Curtin ACT 2005

N.S.W.

Albury Wodonga Commodore Users Group

PO Box 1014
Albury NSW 2640

Amiga Burwood User Group

PO Box 308
Burwood NSW 2134
Tel: (02) 970 6025

Armidale Amiga User Group

PO Box 375
Armidale NSW 2350
Secretary - Bob Estreich

Australian Amiga Users Association

PO Box 389
Penrith NSW 2750
President - Gary Colligan (02) 627 1201,
Secretary/Vice President - Bob Bliss (02) 670 5659
AmiOz BBS (02) 627 4442
Online 24hrs 7 days
A SkyPix Graphic BBS

Coffs Harbour Amiga Owners Society (CHAOS)

26 King St
Coffs Harbour NSW 2450
Contact - Mr. Moore, 3 Kotuku St, Coffs Harbour (066) 511 376
Chris Wood 26 King Street, Coffs Harbour (066) 523 680
Meetings - First Tuesday in each month at 7.30 pm except in school holidays at Toormina High School, near Coffs Harbour.

Commodore Hornsby Users Group

PO Box 1578 Hornsby
Northgate NSW 2077
President - Alan Hall (02) 476 4929
Secretary - Robyn Sparrowhawk (02) 871 3409
Meetings - fourth Wednesday of each month (not December), monthly workshops second Wednesday of each month (not January)
Club BBS (02) 484 2874 24 hrs
Newsletter - Peripheral

Compu-Tech Computer Club

15 Hazelton Grove
Gateshead NSW 2290

Cooma Amiga Users Group

PO Box 409
Cooma NSW 2630

East Coast Amiga

PO Box 344
Gosford NSW 2250

Macquarie Fields User Group

32 Rosewood Drive
Mcquarie Fields NSW 2564

Macquarie University Commodore Amiga Society (MUCAS)

President - Amos Bannister
Vice President - John Paul Lonie
Secretary - Murray Gilbert
Official BBS - Plummet BBS (02) 949 1224

Muswellbrook Commodore Computer Club

Chairman - G. Simpson (065) 425 560
Secretary - Jan Hickey (065) 433 740
Meetings - Upper Hunter Citizens and Police Youth Centre, Carl Street, Muswellbrook NSW 2333 on the second Saturday of each month at 7.30 pm.

Newcastle Commodore Users Group

4/13 Smart Street
Charlestown NSW 2290
President - George Morrison (049) 57 4271
Secretary - Sue Slack (049) 47 1118 a.h.
Meetings - 7.00 p.m. 4th Tuesday each month at Charlestown Public Library, Ridley Street, Charlestown, Newcastle
Newsletter - VICTIM

Penrith Commodore User Group

42 Alpine Circuit
St. Clair NSW 2759
Meetings - 3rd Wednesday of each month at the Victoria Street Community Cottage, Victoria Street, Werrington from 7.30p.m.
President - Gary Bull
Secretary - Elena Denton
Telephone - (02) 670 3207 or (02) 623 4258 after 5p.m.

RAAF Richmond Computer Club

C/- CTS, SSSRIC
RAAF Base Richmond NSW 2755

Singleton Amiga Users Group

22 Falkiner Crescent
Singleton Heights NSW 2330
Chairman - Ken Gate
Treasurer - Peter Smith
Secretary - Bob Aitchison
Meetings - 2nd Wednesday each month at 7pm in the staff room of the Singleton Heights Public School.

Southern Sydney Commodore User Group

PO Box 375
Padstow NSW 2019
Telephone (02) 773 9666
Fax (02) 774 1165
Meetings - 8pm Scouts Hall, Connelly Street, Penshurst every two weeks on Monday evening.

Sydcom

PO Box 1542
Sydney NSW 2001
Meetings - second Friday of each month, Macquarie Boys High School, James Ruse Drive, Rydalmere at 7.30 p.m.

Tuggerah Lakes Commodore Users Group

PO Box 2257
Gosford NSW 2250

Wollongong Amiga User Group

42 Heaslip Street
Coniston NSW 2500

N.T.

Amiga Users of the Northern Territory (AUNT)

PO Box 40401
Casuarina NT 0811
Meetings - 2nd Wednesday of each mont at the Moil Primary School staffroom from 7.30 pm.

QLD

Australian Amiga User Group

PO Box 1386
Toowoomba QLD 4350
Telephone - (076) 932 198
Vice President
Meetings - 2nd Saturday of each month
130 Members
Publication - Australian Amiga

Brisbane Amiga User Group Inc

Lot 4 Lindsay Road
Morayfield QLD 4506
Secretary - Graham Bowden

Bundaberg Commodore Comuputer User Group

PO Box 1713
Bundaberg QLD 4670
President - Jan Kretschmer
Vice President - Robert Cullen
Meetings - West State School Library
General meetings start at 10.30 a.m. and Ordinary meetings at 12.30 p.m., ring Bundaberg 52 7098 for more information.

Commodore Computer Users Group Inc (CCUG Inc)

PO Box 274
Springwood QLD 4127
Meetings - For information on meetings ring (07) 288 8863 a.h.

President - Greg Perry ph (07) 366 3295
Secretary - Mike Williams ph (07) 209 9084
BBS - (07) 808 7694 & (07) 808 8823
Sysop - Graeme Darroch (07) 209 1999
BBS is part of Fido Network (Node No 3:640/304) and can be accessed by members at 300, 1200/75, 1200, 2400 bps and 9600bps, using 8 data bits, 1 stop bit and no parity.
Newsletter - Cursor

Commodore User Group Mackay

PO Box 422
Mackay QLD 4740
Meetings - Every second Wednesday night at Mackay & District Education Centre, North Mackay 7.30 p.m
Secretary - Trevor Johnston (079) 59 8417

Commodore User Group of Australia

PO Box 166
Pittsworth QLD 4350

Gladstone Amiga Users Group

PO Box 1390
Gladstone QLD 4600

Ingham User Group

Chairman - Stephen Colclough, 4 Philip Street, Ingham QLD 4850 phone: 763 436
Librarian - Martin Lynch, 2 Borello Street, Ingham 762 243
Meetings - Every 2nd Sunday afternoon at a location to be advised in monthly newsletter following the last meeting, at 2.00 pm to 5.00 pm.

Ipswich Commodore User Group

PO Box 252
Ipswich QLD 4305

Northern Amiga User Group

PO Box 1722
Mount Isa QLD 4825
President - Marc Katona
Vice President - Peter Thomas
Meetings - second Sunday of each month at 2.30 pm at Norsoft in Hopkins Arcade, West Street
Newsletter - Newsletter of the Northern Amiga User Group.

S.A.

Amiga User Group of SA

PO Box 10131
Adelaide SA 5001

Barossa Users Group

RSD Box 1 Daveyston
Greenock SA 5300

S.A.C.C.U.G.

PO Box 427
North Adelaide 5006
Meetings - 1st & 3rd Monday of the month at 7.30 p.m. at North Adelaide Primary Schoool, Tynte Street, North Adelaide (next to the North Adelaide Fire Station). $1.00 per person for hall hire.
President - Glenn
Secretary - Laurie
Newsletter - Bits and Bytes

Southern Districts Commodore Users Group

1 Birubi Way
Morphett Vale SA 5162

Whyalla Commodore User Group

PO Box 2367
Whyalla (Norrie) SA 5608

TAS

Burnie Commodore Amiga Users Group

PO Box 471
Burnie TAS 7320
President - Clyde McLennen
Vice President - John West
Secretary - Wayne Marks
Meetings - Mooreville Road campus of TAFE, 2nd Tuesday each month escept school holidays, workshops and courses notified at meets and in the newsletter.
Newsletter - B.C.A.U.G. News

Tasmanian Amiga Users Group

6A Hamilton St
Launceston TAS 7250

Tasmanian Commodore Users Association

PO Box 673
GPO Hobart TAS 7000
President - Kaz Paul
Vice President - David Sherrin
Club Secretary - Ken Silver
Meetings - Glenorchy Derwent Regional Library,Terry Street, Glenorchy, 7.30p.m.
Newsletter - Discourse

VK Commodore Users Group

PO Box 168
Launceston TAS 7200

West Coast Commodore Users Group

8 Hurst Street
Queenstown TAS 7467

VIC

Amiga Users Group (Vic) Inc

PO Box 48
Boronia VIC 3155

Balaclava User Group

3/2 Almond Avenue
Brooklyn VIC 3025

Border District Commodore User Group

PO Box 536
Wodonga VIC 3090

Compu-U-Pals

C/- M.D.A.
PO Box 29
Knoxfield Vic 3180
Organisation which helps people who can't get to User Group meetings or might live in areas where there is no support for their computer, or for other reasons would prefer to contact other friendly Amiga and C64 users by mail.
Newsletter - Disk-+-Link

Commodore User Group (VIC) Inc

1 Argyle Street
Gladstone VIC 3140

CRI Commodore User Group

President - Rod Mason (03) 306 4063
Membership Secretary - Steve Riepsamen (03) 314 5677
Meetings - Every 3rd Sunday, VRI Hall, Stewart St, Braybrook, VIC (behind Squash Courts), 7.30 p.m.
130 members

Dingly Commodore User Group

1 Hazelwood Close
Dingley VIC 3172

Eastern Suburbs Eighty Users Group

17 Douglas Avenue
Box Hill South VIC 3128

Knoxcom Incorporated

PO Box 2000
Ferntree Gully VIC 3156

Latrobe Valley Amiga User Group

President - Peter Pildre (051) 27 6896
Secretary - Dave Andrews (051) 34 8713
Meetings - last Friday of each month at 7.30 pm at the Traralgon Ambulance Office at 1 Campbell Street, Traralgon VIC 3844.

Melbourne Commodore Computer Club

PO Box 177
Box Hill VIC 3128

Moe Commodore Users Group

20 Edward Crescent
Trafalgar VIC 3824

Shepparton Commodore Computer Club

Meetings - Fortnightly on Sunday night 7.30 - 9.00 p.m. at the Guide Halle, Cnr of Nixon & Skene Street, Shepparton VIC 3430.
Secretary - Val Hutchinson.

Stawell Commodore User Group

PO Box 299
Stawell VIC 3380

VRI Commodore User Group

PO Box 253
Glenroy VIC 3040

Waverley Commodore Users Group

1 Argyle Street
Chadstone Vic 3148
President - Geoff Travers

Wangaratta Amiga Group

PO Box 97
Wangaratta Vic 3677
President - Bruce Galloway (057) 265 311
Secretary - Murray Foye (057) 214 310
Meetings - First Wednesday of each month at Chisholm St. Primary School, Wangaratta at 7.30 p.m.
Newsletter - Chinwag

Yarra Valley Commodore User Group

PO Box 170
Lilydale VIC 3140

W.A.

Amiga Group Albany

26 Boronia Avenue
Albany WA 6330
Contact - Dave Clements (098) 411 435
Meetings - every second Monday.

Amiga Users Group of WA (Inc)

PO Box 595
Cloverdale WA 6105
Meetings - Curtin University, Bentley 7.30 p.m.
General Meeting - 2nd Tuesday every month.
Tutorials - Every Friday
President - Bill Sharpe -Smith (09) 362 3539
Secretary - Arthur Rutland (09) 279 2778
Newsletter - AUGMENT

Commodore Computer Club WA Inc

PO Box 146
Willeton WA 6155

Commodore Computer Users Group (Nth Subs)

234 Balcatta Road
Gwelup WA 6021
President - Adrian Liebregts (09) 279 7383
Meetings - The Herb Graham Centre, Mirrabooka, every second and fourth Wednesday 7.30 pm to 9.30 pm.

Hedland Commodore User Group

5a Baler Close
South Hedland WA 6722

Perth Commodore & Amiga User Group

22 Marriot Way
Morley WA 6062
Contact - John Roe (09) 276 6287
Meetings - Every Thursday night at 7pm - 9.30 p.m. at the Les Hansman Centre, 246 Walter Road, Morley (opp Coventrys).

Postal and Repair Service Centre

22 Marriot Way
Morley WA 6062
(09) 276 6287

New Zealand

Amiga User Group of New Zealand

PO Box 35107
Christchurch NZ

Christchurch Commodore User Group

PO Box 4665
Christchurch NZ NZ0

New Zealand Amiga User Group

PO Box 85094
Sunnynook
Auckland NZ NZ10

NZ Micro Computer Club

PO Box 6210
Auckland NZ

Public Domain Software

What is it?

Andrew Leniart takes us on a guided tour of the world of public domain software.

There are three main ways that software is released and distributed.

One is naturally the commercial market where you go down to a store, hand over a fair bit of your hard earned green stuff and get a pretty box with a disk and manual within it.

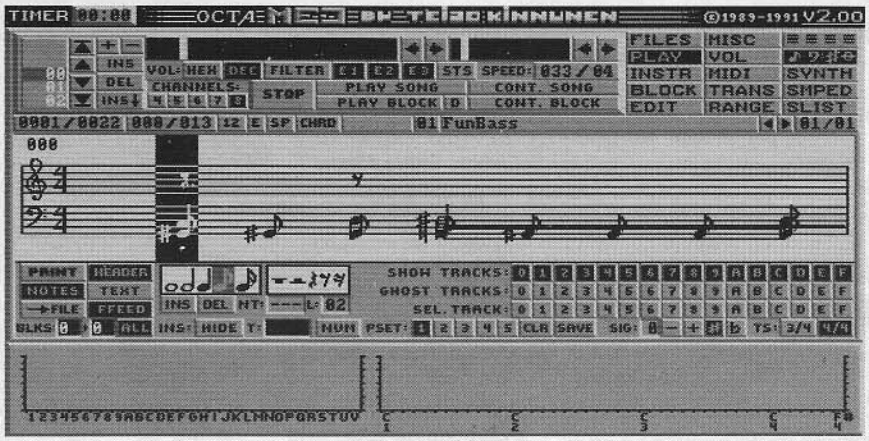
Public domain software works in a different way. The biggest difference is that it's FREE! Something for nothing these days? Yes, it's true. We have hundreds, maybe even thousands of Amiga enthusiasts that are programmers, who write software for the Amiga and release this software for others enjoyment through the many public domain libraries like Prime Artifax or Megadisc. The software may be copied and swapped quite legally and usually, the authors ask nothing in return for their work and regularly update the software as bugs are reported to them.

The third type of software release is like public domain though with a slight difference. It's called Shareware. Like public domain, shareware software is also released free and is freely redistributable. However with Shareware software, there are usually some (quite reasonable) conditions attached.

Most Shareware authors are highly talented programmers and the software they release is often of very high quality indeed. As a matter of fact, quite often, you will find shareware software which is even better than its commercial equivalent.

The conditions that shareware authors usually attach to the use of their software is that once you have tried their product and decide that you like it and wish to continue using it, you pay for it by sending them a donation to help with future development of the software. The suggested donation or registration fee of shareware software is usually very reasonable indeed and often includes being sent the latest version of the product you have paid for.

Note that you are not forced to register shareware software. However if you don't wish to pay for the product, then you are under a moral obligation to cease using it and delete it from your collection. Please try to support the shareware concept and do the right thing by encouraging these people to continue developing their software by buying it.



MED - Public Domain music software

Where do you get it?

There are dozens of public domain libraries around and all you need to do to find them is check a couple of Australian Amiga magazines. There are always some advertised in each issue of *The Australian Commodore and Amiga Review* so check there. There are probably a few advertised in this Annual as well so flip around the pages and look here.

It pays to shop around though. Some public domain outlets charge unreasonable prices for public domain disks. As a rule of thumb guide, if you approach a public domain supplier that wants to charge more than about $8 maximum for a public domain disk (disk and postage included) then look elsewhere.

It pays to watch out for the opposite extreme too! Companies who sell public domain software at little more than the cost of a disk probably provide very poor service, are reluctant to exchange faulty disks and give little or no telephone support if you're having trouble.

Generally, you get what you pay for - but remember, the software is free, so no one is obliged to help you make it work. What you're paying for is the service of handling your order, duplicating and posting you the disk and in some cases, hand-holding down the track if there's a problem of some sort.

There are many different types of public domain collections around. Probably the most popular and extensive collection is compiled by a chap name Fred Fish in America. Fred's AmigaLibDisk compilations are easily identifiable by the fish shaped disk icon on his disks that travel the whole globe and are stocked by every public domain outlet I've heard of. Fish disks have been around since the Amiga was born and at the time of writing, there have been well over 590 disks cram packed full of software (both public domain and Shareware) released. 99% of them are accompanied by full documentation on how to use the software and are fully iconised so to speak, so that the contents may be easily viewed by via Workbench.

Check the public domain scene out. I guarantee you won't look back. ❑

Fish Disk List

Disks 400 - 550

Public Domain Software

DISK 400

DriveWars - Shareware shoot'em up game that pits you, df0: or df1:, against a computer virus that is about to destroy all U.S. records of Iraq's positions during operation Desert Shield. In v1.0, you must fly df0: through the computers and destroy all contaminated chips and disks.

ParNet - The Software Distillery's NET: file system using Matt Dillon's parallel port code. Using a special DB25 cable, two Amigas can be connected via the parallel port. One Amiga can mount the other as a device and read/write the files as if they were local.

ReqLib - Runtime, re-entrant library designed to make it easier for programmers to use powerful, easy to use requesters, for communicating with users. Includes such functions as a color requester, file requester, message display requester and many functions to make the creation of gadgets for your own custom requesters easier.

SetCPU - Designed to allow the user to detect and modify various parameters related to 32 bit CPUs. Includes commands to enable or disable the text/data caches, switch on or off the '030 burst cache line fill request, use the MMU to run a ROM image from 32-bit memory, and to report various parameters when called from a script. ***v1.60, an update to v1.5 on disk 223.***

SF2 - File search utility. Default searching starts from the root directory of the specified device. Searching includes looking into archive files generated by various compression utilities. Archive files ending with a .ARC, .LHZ, .ZIP and .ZOO are supported. Requires ARP 1.3 (rev. 39.1).

DISK 401

CrcLists - Complete CRC check files for disks 001-400 using the brik program.

HappySong - A song created using the freely distributable program MED V.2.10. Player program included.

DISK 402

ADoc - A freely re-distributable help utility. Permanent help on any subject. Major feature is automatic searching of the word on which you clicked. Includes a 50 Kb help file (French only) on all Intuition and Dos function calls.

APrf - Print utility. Intuition interface, preview function, page selection, margins setup, line numbering, etc.

Pcopy - An intuition based disk copier. Features high speed diskcopy with write verify, data recovery from damaged tracks, full multitasking compatibility, etc.

PLW - Phone Line Watcher. For users of Hayes compatible modems. Monitors the serial port and records all incoming calls. Allows a remote user to login, receive and leave a message, and transfer files via Z-Modem in either direction. Two level DOS access, disabled DOS requestors and more. New features include the ability to define external programs as menu options that can be executed by the remote user.

PrintStudio - Very nice intuition based general purpose print utility. Prints several graphic formats with options. Print any part of a picture, print screens and windows, save screens and windows as IFF files, modify color palettes, etc.

StdFile - Module that can be linked with any Intuition based program to provide a standard file requestor similar to the one in AmigaDOS 2.0.

DISK 403

FixDisk - Recover as much as possible from defective disks. It can sometimes recover unreadable tracks, check file integrity, check directory structure, undelete files, copy or show files, etc. Intuition interface.

KawaiEditor - A Kawai K4 sound module voice editor.

NiftyTerm - NiftyTerm is an h19/VT102/VT52 emulator. Originally designed for DNet, has been expanded for use as a normal terminal emulator.

PokerDemo - Demo of some Solitaire card games. Includes 'Accordion', 'Calculation', 'Poker Solitaire', and 'SeaHaven Towers'.

RexxHostLib - This is a shared library package to simplify the ARexx host creation/management procedure. Rexx-message parsing is also included making it possible to control ARexx from programs such as AmigaBASIC.

DISK 404

LHArc - Archive program.

NGTC - Release One of a trivia game based on 'Star Trek: The Next Generation' TV series. This disk contains the game module and part 1 of the Trivia Database. You MUST have disk 405 which contains the rest of the Trivia Database and the required player program.

DISK 405

GIFMachine - Converts CompuServe GIF image files into IFF SHAM and 24-bit ILBMs. It offers a number of extra options like dithering, horizontal and vertical flip, as well as automatic border removal. Requires KickStart v2.0 or greater.

NGTC - Release One of a trivia game based on 'Star Trek: The Next Generation' TV series. Contains over 500 questions on Season One of the series with over 50 audio/video clues. This disk contains part 2 of the Trivia Database and the 'Projector' player. You MUST have disk 404 which contains the rest of the Trivia Database and the game module. Created with 'The Director'. Binary only.

DISK 406

ATCopy - Copies files from Amiga side of a system equipped with a PC/AT bridgeboard, to the PC side, using wildcards. Supports CLI and WB.

DirWork - Directory utility. User-configurable.

DMS - DISK-Masher - compress entire floppy disks. Extended virus checking, data encryption, etc.

GnuAwk - GNU awk is the GNU Project's implementation of the AWK programming language. It conforms to the definition and description of the language in The AWK Programming Language, by Aho, Kernighan, and Weinberger, with the additional features defined in the System V, Release 4v of UNIX awk.

GnuGrep - The grep program from the GNU project. Replaces grep fgrep, egrep, and bmgrep. This is an ***update to v1.5 on disk 295*** and now handles AmigaDOS style wildcard specifications.

MadBlanker - Screen blanker - bounces a transparent rectangle around the screen.

DISK 407

DMouse - Screen & mouse blanker, auto window activator, mouse accelerator, popCLI, pop window to front, push window to back.

Flex - Replacement for UNIX 'lex' (lexical analyzer generator) program - faster than lex. ***v2.3, an update to disk 156.***

WonderSound - Additive harmonic instrument design tool with a separate envelope design window and 16 relative harmonic strength and phase angle controls.

DISK 408

DCmd - Monitors a CLI's console IO and copies it to a user specified file.

KickDate - Saves and retrieves the current system date stamp to the first sector of the kickstart disk. This is handy for A1000 users with autobooting hard drives, since it can save the system time across system resets and power cycles.

MoniDie - Screen hack. Scary! Be sure to turn up the sound. Binary only - source available.

Post - PostScript interpreter which supports the full Adobe language and type 1 PostScript fonts. Includes: Charter font in Roman, Italic, Bold, and Bold-Italic, and Courier font in Roman, Roman-Oblique, Bold, and Bold-Oblique.

DISK 409

Trek - Star Trek game. The object of the game is to stay alive, healthy, and maintain the Enterprise in good condition. As Captain of the ship, you must go on missions where you show your common sense and level headedness.

DISK 410

MechFight - A role playing game where you explore a world, buy or find items, and fight against robots and aliens.

Vlt - VLT is both a VT100 emulator and a Tektronix (4014 plus subset of 4105) emulator, currently in use at SLAC (Stanford Linear Accelerator Center). Although the VT100 part was originally based on Dave Wecker et al.'s VT100, many enhancements were made. Features include use of ARP, an ARexx port, X-Modem 1K/CRC and Kermit protocols, support for additional serial ports, external file transfer protocols (XPR), a 'chat' mode, and scrollback /review/history buffer. It comes in 2 versions, one with Tektronix emulation. The Tektronix emulation allows saving IFF files, PostScript files, and bitmap printing.

DISK 411

BPDI - Demo of a new strategy game written in GFA-BASIC. German version only.

DiskPrint - Prints labels for 3.5" disks, primarily for PD library disks. Label data files can be loaded into memory so labels for special disks are available without having to type anything or wait for AmigaDOS to read in the full directory.

Mind - A design for Artificial Intelligence based upon linguistics. Includes five documents describing the theory behind the animation.

PCStatus - Bridgeboard user's program that displays the status of the CAPS, NUM, INS, and SCROLL key in a separate window on every PC screen. Also, both the Amiga and the PC will use the same status of the Caps Lock key.

Tron - Another game about the lightcycle race sequence in the science fiction computer film 'Tron'. One or two players.

DISK 412

AutoAddRAM - Add several non-autoconfig memory boards at once, optionally specifying priority and memory chunk name.

Check4Mem - Check from a batch file for a specified amount of memory with certain attributes. If the requirements are not met, a WARN return code is generated. ***This is v3, an update to disk 242.***

CopperBars - Simple demo of some rolling copper bars.

CopperMaster - Create custom copper lists for the WB screen.

CustReq - A glorified ASK command for your startup-sequence. It generates a requester with the specified text, positive and negative gadgets (either of which can be the default), and an optional timeout value.

DirectoryOpus - Demonstration of a powerful commercial directory utility. Very user friendly and configurable.

FAClock - Front Analog Clock. Always stays at the very front of the display.

FullView - A text viewer that uses gadgets at the bottom of the screen (thus can display text 80 columns wide), opens up to the full height of WB screen, has fast scrolling, and can work with files compressed by PowerPacker. Shows IFF pictures.

Image-Ed - An icon editor. Draw and edit images up to 150 by 90, in up to 16 colors. Allows freehand drawing, empty or filled rectangles, different shapes, copy, flip about x or y axis, stretching and condensing, flood fill and complement, text with selection and loading of font style, undo, magnified and normal sized images and two active drawing screens at once.

JoyMouse - Use a joystick as a mouse. Binary only.

JPDirUtil - A directory utility with many built-in commands, and 16 customisable gadgets. User configurable. Can be iconified to WB screen.

NoReq - Program that alternately turns on and off the DOS requesters. Useful for bulletin boards or other systems that may be unattended for long periods of time.

OSK - A software keyboard, which allows you to type using the mouse. Can be made to send keystrokes to any window, and can be iconified. ***This is v1.2, an update to disk 287.***

PopInfo - A small utility which 'pops open' to give you information about the status of your devices and memory. ***This is v4.0, an update to v3.0 on disk 242.***

SuperPlay - A versatile sound playing utility, that will play any file, with user definable volume and speed.

SwapName - A variant on the 'rename' command that instead swaps the names of two files. Binary only.

TicTacToe - Game. Binary only.

ZeroVirus - A fully integrated virus checker and killer, with bootblock save and restore features. Uses Brainfiles to recognise viruses, and has 'on-line' Brainfile editing facilities. Can be iconified to WB screen.

DISK 413

Aerotoons - Animations with anthropomorphed aircraft as the center of their humour. Includes 'Swiss Army F-16 In Combat' and 'Stealthy Manuever II'.

Juggette - Some cute 'juggler' animations from Eric Schwartz. Includes 'Juggette Anim', 'Juggette_2', and 'Juggler Demo 2'.

DISK 414

Anims - Some more cute animations from Eric Schwartz. Includes 'Batman', 'LateNight', and 'Terminal'.

Din - Library. Share image and text objects between programs. The din.library is ideal if you want to write an editor and a DTP program that can share text, or a drawing program and a DTP program that can share a brush. Requires AmigaDOS 2.0.

Lila - Print text files on Postscript printers, with header, page numbers, and multi-column pages. Can print portrait or landscape. ***This is v9004b, an update to v8912a on disk 368, binary only.***

PPAnim - An anim player for normal IFF ANIM opt 5 (DPaint III) files or ANIM files crunched with PowerPacker. The de-crunching is done automatically as the file is read. Features many command line options, palette change during animation, full overscan PAL/NTSC support and yet it is only 7K. Compatible with AmigaDOS 2.0. Some new 2.0 features (ASL requester) supported.

PPLib - A shared library to make life easy for people who wish to write programs that support PowerPacker. Loading crunched files from C or assembly is made fast, short and easy.

Wrap - Wraps a Sculpt-Animate 4D image around a sphere or cylinder. You can even use reliefed surfaces to construct planetary objects or other textured shapes.

DISK 415

CBBSA - W0RLI-like BBS system for use in amateur radio. ***This is v6.71a, an update to v6.1c on disk 241.*** Binary only, source available.

FileTypes - This program can recognise different kinds of files in a directory. Currently recognised types are executable and IFF (all types, ILBM, 8SVX etc.). Includes listing the whole contents of a directory or only files of one or more types. ***This is v2.1,*** includes assembly source.

Uedit - A nice shareware editor with learn mode, a command language, menu customisation, hypertext, online help, teach mode, split windows, copy and paste, undo, and other user features. ***This is v2.6c, an update to v2.5d on disk 287. Binary only.***

DISK 416

Budget - Helps with managing personal finances. ***V1.301,*** binary only.

Clock - Two programs to put clocks on the WB screen. The executables are small and take little processor time (1.5%) to run. ***v1.4.*** Both programs require ARP. Source in C is included.

Intoxicated - A nice little screen hack which affects the mouse. Includes source.

Quantizer - FLCLQ color quantizer which converts 24 bit true color images into 256, or less, color images. Uses a sophisticated algorithm, mixing median-cut, popularity, and a custom algorithm. Includes a version for Amiga's with a math coprocessor. ***v1.0, shareware, binary only.***

SoundEditor - An 8SVX stereo sound file editor written in assembler. ***This is v.98, an update to v.80 on disk 355.*** New features include a working digitiser, raw loads, raw mac loads, time markers, rate converters, delay, ramp, filters, scroll. Binary only.

Utils - A group of small utility programs requiring ARP. 'Du' displays the disk space used by a directory, 'Head' displays the first lines of a file and 'Cookie' displays a humorous message. Assembly source is included.

WTF - (Window To Front) is a little hack which brings a window to the front when double-clicked. Includes source.

DISK 417

Alert - Program to create custom alert boxes and stand-alone programs to display them. Each alert can be up to 7 lines of up to 77 characters per line. ***v3.6,*** shareware, binary only.

Coyote - Another cute animation from Eric Schwartz. This one is 'Coyote 2: The Road Test', Eric's tribute to Chuck Jones.

DataEasy - A database program which includes a phone dialer, speech output, a simple screen editor for making and modifying the database definitions, a screen print function, form letter printing, sorting, searching, and two sample databases. ***V1.1, binary only, source available from author.***

MemLook - Gives a graphical view of the memory area. Features memory gauge and controllable scrolling speed. ***v2.0, an update to v1.1B on disk 364.*** Includes source in assembly.

MostCurrent - 2 programs that are to be used with B. Lennart Olsson's Aquarium program. The first program creates a new button called 'Most Current'. The second program updates the index file so that the 'Most Current' button is set for all entries that are the most current versions of their set. ***V1.0, includes source in C.***

Quiz - Quiz game. Subjects include 'Bible', 'Indians', 'Physics', and 'States'. Binary only.

WBGauge - Patches AmigaDOS 2.0 to bring back the little gauge in the left border of disk windows, shows available space on disk. ***V1.0, binary only.***

Whatls - Recognises a wide variety of file types (executables, IFF, icons, zoo files, etc), and prints interesting information about the structure or contents of the recognised file types, such as what libraries, devices, resources, fonts, etc. a program uses. ***This is v2.0, an update to v1.2a on disk 334,*** and is for AmigaDOS 2.0 only. Binary only.

DISK 418

AtMovies - Animation starring cartoon creation 'Amy the Squirrel'.

BootCACHE - Turns off the 68020/68030 instruction and data caches upon rebooting. This improves chances of older programs working on Amigas with co-processors. ***v1.0, includes source in assembly.***

LJP - Print text files on an HP LaserJet. Supports landscape or portrait modes, use of any built-in font, automatic downloading of soft fonts, fast printing, one or two logical pages on a single paper, multiple styles of page headers, adjustable page length and width, user specified pitch and point of a font, selectable margins and tab spacing, multiple copies, optional line numbers and more. ***v1.01, binary only.***

ModulaDefs - Implementation and definition modules for the Amiga's Graphics, Intuition, and Math libraries, to be used with the Modula - 2 compiler from disk 24. Includes a source example of using the modules. Binary only for the rest of the distribution.

PSX - A public screen manager for AmigaDOS 2.0. Lets you open, manipulate, and close public screens, set the global public screen bits, and provides a good example of using GadTools and ReadArgs. Includes source.

PubScreens - Two utilities to manipulate public screens. You can open and close them, or ask for information. PublicS is the WB version of PubScreens. AmigaDOS 2.0 only. ***This is v1.0, binary only.***

Running - Classic maze and puzzle game. You run around in a maze and try to catch the ghosts or spiders. It is completely multitasking friendly and compatible with AmigaDOS 1.2/1.3 and 2.0. Design your own levels. Binary only.

ScreenX - Designed to make getting at screens easier. You can pop them to the front, push them to the back, save the screen to an IFF file, print, etc. ***This is v3.0, an update to v2.1 on disk 158. Binary only.***

DISK 419

ParM - Parameterable Menu. Build menus to run whatever program you have on a disk. Works in WB or CLI mode. Can have it's own window or can attach menus to the CLI window you are running it from. ***This is v2.5r, an update to v1.1 on disk 375. Includes source.***

ReqAztec - Enhanced version of the interface to req.library for Aztec C 5.0. Includes source in assembly.

ReqLib - A runtime, re-entrant library designed to make it easier for programmers to use powerful, easy to use requesters, for communicating with users. Includes a color requester, file requester, message display requester and functions to make the creation of gadgets for your own custom requesters easier. ***v2.5, an update to v1.2 on disk 400. Binary only.***

SetColors - Palette replacement program. Save and load color files, update preferences. Includes source in C.

Yacc - Port of Berkeley Yacc. This Yacc has been made as compatible as possible with the AT&T Yacc, and is completely public domain. Note that it is NOT the so-called Decus Yacc, which is/was simply a repackaging of the proprietary AT&T Yacc. ***Update to disk 299. Includes source.***

DISK 420

BootX - Virus killer. BootX can check the bootblock of a disk, check memory for any resident viruses, and scan a disk for link viruses. It can load bootblock libraries for you to write on your disks. Loads brain files so you can add any new bootblocks that BootX does not yet recognise. Written in assembly. ***v3.40, binary only.***

Iff2Src - Converts IFF pictures or brushes to source (C or assembly). The bitplanes, mask, colormap and image are written to a file. You can convert multiple files at once. Supports new 2.0 AppIcon windows (like IconEd). AmigaDOS 2.0 only. ***v1.0, binary only.***

MenuWriter -Write a menu to the bootblock of a disk. Allows up to 30 entries of 39 characters long, with commands up to 31 characters long. The loader also allows batch files to be executed. Includes a built in virus detector. ***v3.1, binary only.***

QuickHelp - With the QuickHelp utilities you can make your own help files like "man" in UNIX. AmigaDOS 2.0 only. ***v2.0, binary only.***

ShowGadgets - Lets you view all gadgets in a window. Includes source.

SpaceWar - Two player game with each player controlling a spaceship. The object is to shoot the other player, gaining one point for each kill. The game ends when a player reaches fifty points. ***v1.11, binary only.***

SysInfo - Gives information about the machines configuration. Including some speed comparisons with other configurations, versions of the DOS software, etc. ***v1.94, an update to v1.4 on disk 368. binary only.***

TTDDD - Textual TDDD is an ASCII version of Turbo Silver's TDDD object and cell description files. The TTDDD format enables users to algorithmically generate objects, scenes, and animations. Includes programs to convert between TDDD and TTDDD formats. ***v1.0, shareware, binary only.***

WinMan - Utility to manipulate windows. Adds menus to WB to shrink, maximise, tile or cascade windows. AmigaDOS 2.0 only. ***v1.0, includes source.***

DISK 421

DMouse - A versatile screen & mouse blanker, auto window activator, mouse accelerator, popCLI, pop window to front, push window to back, etc. ***v1.25, an update to v1.24 on disk 407. Includes source.***

EZAsm - Combines parts of the 'C' language with 68000 assembly, giving it the feel of a higher level language. Supports all 1.3 functions. Uses braces and 'else' like 'C'. Resulting code is optimised as much as possible. Takes source file you create and outputs a .asm file. Includes example source and executable files. ***v1.3, binary only.***

NoVirus - Anti-Virus utility. Features known and new virus detection, view boot blocks, save and restore bootblocks, several 'Install' options and more. Written in assembly. ***This is v3.31, an update to v1.56 on disk 180,*** limited demo of commercial version. Binary only.

Zon - An arcade/adventure game that mixes a unique blend of puzzle solving and arcade adventure. Has 19 levels, save/restore your game on any level, digitised soundtracks & sound effects, over 100 objects to discover and explore, up to 300 moving objects on the screen at once. ***v1, shareware, binary only.***

DISK 422

Gravity - Program which simulates the movements of astronomical objects under the influence of gravity. ***v1.0, binary only.***

Imploder - Reduce the size of executable files while letting them retain full functionality. Uses efficient algorithms as well as taking into full consideration the complexity of the Amiga environment. ***v3.1, binary only.***

PopUpMenu - Program to use pop-up menus with any program that uses standard intuition menus. ***v3.5, includes source.***

SystemTracer - A tool to view and manipulate various AmigaDOS 1.2 and 1.3 system structures. ***v1.0, includes source.***

TrackDOS - Program for easy transfer of data between DOS, memory and trackdisk.device. DOS means the data contained within a file, memory means the data contained anywhere within the memory map and trackdisk.device means data stored on a disk not accessable with DOS (eg. bootblocks, special loader, disks, etc.). ***v1.04, an update to disk 365. Binary only.***

TrekTrivia - Mouse-driven trivia type program for Star Trek fans. Contains 100 questions with additional trivia disks available from the author. ***This is v3.0, an update to v2.0 on disk 252. Binary only, shareware.***

DISK 423

Hollywood - Trivia game with such subjects as M*A*S*H, Star Trek (old and TNG), Indiana Jones and more. Each topic contains 50 questions and a related picture. ***Shareware, binary only.***

LCDCalc - 4 function (with memory) calculator. Written in J-Forth. ***v1.023, binary only.***

Pogo - Animation. Pogo and crew try to hold a conversation with Miss Mam'a'selle.

SetRamsey - Program to test the current settings of the RAMSEY ram controller chip on an Amiga 3000 under Kickstart 1.3 or 2.0 and change them if you wish. Useful for hardware debugging to control static column mode, burst mode, or changing the refresh rate. ***v1.02, binary only.***

DISK 424

AutoCLI - 'PopCLI' type replacement that works with WB 2.0. Fixes the problem with PopCLI crashing the machine if used on a PAL Amiga to open a CLI window with a vertical size greater than 200 lines. Other features include an optional Function-key press with the qualifier to execute an S:script file. ***v1.88, and update to v1.6 on disk 399, with more enhancements. Binary only.***

MED - Music editor like SoundTracker. A song consists of up to 50 blocks of music, which can be played in any order. Editing features include cut/paste/copy tracks or blocks, changing the vibrato, tempo, crescendo, and volume. ***This is v2.13, an update to v2.00 on disk 349. Binary only.***

TurboTitle - Program created for the purpose of subtitling Japanese Animation films and to create a standard Amiga subtitle format. Suitable for subtitling any foreign film. ***v0.71, shareware, binary only.***

DISK 425

A-Gene - Demo of shareware genealogy database program. PAL version has been distributed in Australia and England for some time. This NTSC demo version is complete except that it is limited to 600 persons / 300 marriages, does not support a text-editor to add free-form reports to records and does not show Digi-view pictures from within the program. The color requester is not included as this entails adding a library file to libs: and is not really needed. Needs 1Mb. ***v3.10, binary only.***

CheckBook - Checkbook recording program intended to be used as a companion to a checkbook register. Offers a simple way of balancing checkbooks, tracking bank transactions, and recording budgeted transactions. ***v0.9, binary only.***

Downhill - Skiing arcade game. Ski Skylar mountain, a dangerous, steep, downright scary mountain with bonus flags to pick up, rocks, bushes, and branches to jump over, all while avoiding obstacles such as trees. Binary only, joystick required, only works under AmigaDOS 1.3.

HeadGames - A 'Shoot-Em-Up' game done with SEUCK game constructor, featuring digitised heads as enemies. Binary only.

DISK 426

Conman - Replacement for standard console handler, provides line editing and command line histories. Transparent to any application program that uses CON: windows. Shareware. ***v1.3e, an update to v1.3 on disk 165.*** Changes include updates for WB 2.0 console refresh and cut/paste, and improvements to window resizing. Binary only.

Metro - You play the role of a city planner. Using limited funds, you must construct a mass-transit subway system capable of meeting the needs of your city. Build wisely and your system will be a success, but poor planning will lead to disaster and financial ruin. Shareware, binary only, source available from author.

RickParksArt - Artwork from a leading Amiga artists. Includes 'Bryce', 'Clipper', 'Einstein', 'Falconer', 'Lincoln' and more.

DISK 427

BlackJack - Blackjack simulation with ability to simulate most casino blackjack games. Allows the use of the most popular playing strategies and modifications to them. Has color coded strategy tables to enhance the learning of the strategy. 1 to 7 players, online help, demo mode. ***v1.01, shareware, binary only.***

Chemesthetics - Program that draws molecules using the *calotte* model (atoms are drawn as bowls). Has a fully intuitionised user interface, pictures can be saved as IFF files. ***v2.00, includes source.***

Cyrillic - Russian 12-point font.

STV - Text viewer with mouse and keyboard scrolling, text search. ***v1.00a, includes full C source.***

DISK 428

BCBMusic - 3 songs composed using MED v2.10 . Doesn't require separate player program as it is compiled with the song. WB2.0 compatible. Binary only.

CryoUtils - 4 handy animation utilities. Includes an animation creation tool that allows you to combine selected pictures into a standard animation, an animation information tool that is used to extract certain information from a given animation, an animation combining tool that allows you to join two animations into a larger one, and an animation splitting tool to split one animation into two smaller ones. Binary only.

ShadowMaker - Demo of an Intuition based Font shadow generator. Converts fonts into color fonts with shadows built in. Missing characters 'w', 'x', 'y', and 'z'. Binary only.

Train - Electric train construction set. Shareware, binary only, source available.

WonderSound - Additive harmonic instrument design tool with a separate envelope design window and 16 relative harmonic strength and phase angle controls. ***v1.6, an update to v1.4 on disk 407. Binary only.***

DISK 429

ATCopy - Program to copy files from the Amiga side of a system equipped with a PC/AT bridgeboard, to the PC side, using wildcards. Supports CLI and WB usage. ***This is v2.1, an update to v2.0 on disk 406. Shareware, binary only.***

CLImax - Command like NewCLI or NewShell except that it creates a borderless CLI or Shell window on a custom screen. Requires ConMan 1.3 or newer. ***v3.0, improved over the first release on disk 224. Includes source.***

Dr - Alternative CLI directory lister command. Features extreme optimisation for speed, a variety of output formats, hiding of .info files by default, and AmigaDOS pattern matching. It is pure (residentable). Includes additional utilities ForEvery and Whichever. ***v1.2, includes source.***

FixCLI - Pure command which fixes problems with CLI's not created by other CLI processes. A new CLI or Shell created by such programs as PopCLI or DMouse gets no path and no current directory. Gives a path to a CLI that does not have one and sets the current directory as specified if none is already set. Place in S:Shell-Startup script. Includes source.

MoveSYS - Reassigns SYS:, C:, S:, L:, LIBS:, DEVS:, and FONTS: to a new disk or directory in one step. From CLI or WB. Just click it and shift-double-click a disk or drawer icon. Small and pure. ***2nd release (the one on disk 224 worked from CLI only). Includes source.***

RunBack - For starting a CLI process in the background, without preventing the CLI window from closing. Pure and only 468 bytes long. Requires the NULL: device, which is included. Using NULL: makes it more flexible and robust than older RunBacks. Includes source in assembly.

Scrub - Disk drive cleaning program which automatically detects which drive has the cleaning disk. Pure. Includes source.

Timer - The timer device made easy! Example of how to create both synchronous and asynchronous waits. Includes a sample C program, a detailed technical discussion, and modules that you can plug in to your C programs.

Trippin - WB game based on an out-of-print board game. The object is a race in which each move you make restricts your opponent's choice of countermoves. Includes source.

Uedit-Stuff - Variety of configuration material for Uedit. Includes stuff for remembering multiple chunks of deleted text, interfacing through Rexx with a terminal program, displaying matching '(' characters when you press ')', expanding abbreviations into phrases as you type, easily shifting lines and blocks of text left or right, improvements to several existing Uedit features, etc.

V - Front-end for More or some other text viewer

that can be made resident. Can be used from WB, reducing disk loading time because V is smaller than More. From CLI, causes More to create a new window, specified with an environment variable, rather than using the CLI window. V is itself residentable. Improved since disk 224. Includes source in assembly.

DISK 430

Lotto - Small lotto number selector with C source.

Pointer - Use the SID sleepy pointer in your programs. Includes C source, a sample program, and modules that you can plug in to your C programs.

SculptTools - Programs to create objects for use in Sculpt 4D. Includes Brush_4D to convert IFF brushes to objects in full color with HAM and EHB support and wrap to various shapes (update to disk 361), Fractal_4d to create fractal mountains with various coloring from brush, checkers or based on altitude, and Spiral_4d to create a variety of objects based around tubes and helixes. Binary only.

SmartFields - Replacement for Intuition string gadgets. It allows you to incorporate into your Amiga C programs the powerful editing capabilities often found in mini-computers. Includes full C source and documentation.

DISK 431

A68Kex - 12 examples demonstrating the use of Charlie Gibbs A68K assembler. Over a quarter megabyte of assembly source code.

AdvTemplates - A collection of PD spreadsheet templates for business and law, originally intended for Lotus 123 on IBM PC's. They have been transfered to the Amiga, loaded into Gold Disk's 'The Advantage', and saved as native Advantage files. Requires 'The Advantage' v1.1 or higher.

CheetSheet - A compilation of cheats, hints, backdoors, helpful bugs, passwords, codes, solves, and walk-throughs for over 150 Amiga games. January 1st, 1991 edition.

EZAsm - Combines parts of the 'C' language with 68000 assembly, giving it the 'feel' of a higher level language. Supports all 1.3 functions. Uses braces and 'else' like 'C'. Resulting code is optimised as much as possible. Takes source file you create and outputs a .asm file. Includes example source and executable files. ***v1.31, an update to v1.3 on disk 421. Binary only.***

DISK 432

APalAsm - Programmable Array Logic (PAL) program based on an old MMI Fortran IV program from the 'PAL Handbook' 2nd and 3rd Edition by MMI. ***v1.00*** - completely rewritten for Fortran 77. The outputs produced are sent to separate files instead of the screen. Plenty of example PAL files to test and inspect. Fortran source included, with instructions to compile using AC/Fortran v2.3.

Badger - Reminder program for your startup-sequence. Badger will open a window and display any important events that are 'due'. Events are entered via menu and prompts. ***v2.01e, an update to disk 365, and includes many new features. Shareware, binary only.***

Conquest - Lore of Conquest is a war game similar in concept to the board game Risk. You are the lord of an entire world, destined to rule the galaxy. Some worlds are ready to colonise, others have natives who do not wish to accept your rule, these you must conquer for they will yield more valuable resources. For two players. ***v1.2, binary only, shareware.***

FifoDev - Like PIPE: but based on fifo.library rather than its own implementation. Fifo.library is a general fifo library implementation that supports named fifos, writing to a fifo from a hardware exception, multiple readers on a fifo with each getting the same data stream, efficient reading, and automatic or manual flow control. Programs that require non-blocking IO can access one side of a FIFO: connection via the fifo.library instead of the FIFO: device. Includes some source.

Reader - Program to scan a word list to locate which words can be made from the letters given. Matching of words by length and by giving the letters known, ie. m.t.h for the word MATCH. Great for word games and crosswords. Results output to screen and a RAM: based file. Word list is in ASCII and so can be edited if desired. New words can be added and it could be used for different languages if required. Supplied with over 24,200 words. ***v1.0, includes source.***

SBackup - Programmers utility to assist in maintaining old versions of source code. SBackup maintains 2-99 old versions. ***v1.00e, binary only.***

TMonth - Will execute any program - the 1st time it's executed each month. Very useful, for example, to execute the ATOM-CLOCK program to set your clock each month. ***v1.0f, binary only.***

Whence - Will locate any file in the current path. ***v1.0, binary only.***

DISK 433

DiskPrint - Prints labels for 3.5" disks, primarily for PD library disks. Label data files can be loaded into memory so labels for special disks are available without having to type anything in or without having to wait for AmigaDOS to read in the full directory. ***This is v2.3.5, an update to v2.3e on disk 411. Shareware, binary only.***

Gwin - GWIN or Graphics WINdow is an integrated collection of graphics routines callable from C. These routines make it easy to create sophisticated graphics programs in the C environment. One line calls give you a custom screen (ten types available), menu items, requestors, text, circles, polygons, etc. GWIN is a two dimensional floating point graphics system with convert between world and screen co-ordinates. Includes built in clipping that may be turned off for speed. Use of color and XOR operations are greatly simplified. Many examples of the use of GWIN are included in an examples directory, including a line/bar graph program, geographic mapping program, SPICE 2G.6 graphics post processor, and others. Extensive documentation is included. ***This is v1.1, an update to v1.0 on disk 322,*** recompiled to be compatible with MANX Aztec C Release 5.

SysInfo - Program which reports information about machine configuration, including speed comparisons with other configurations, versions of the DOS software, etc. ***v1.98, an update to v1.94 on disk 420. Binary only.***

DISK 434

Backup - Backup and Restore allow you to backup any directory tree with optional compression, and later extract all or part of the tree. The protection, date, and file comment are saved with each file. ***This is v2.06, an update to v2.04 on disk 258. Includes source.***

DynaCADD - Part 1 of a two part demo distribution of DynaCADD from Ditek International. DynaCADD is a professional 2D and 3D CAD package. This demo is fully functional except for disabled save and export functions. Requires a system with 68020/68030 and a 68881/68882 math processor. This disk contains all the files necessary to recreate the DynaCADD demo disk number 1. The files for demo disk number 2 can be found on library disk number 435. ***This is v1.84, binary only.***

GMC - Console handler with command line editing and function key support. GMC provides extended command line editing, function key assignment in four levels, extended command line history, online help for functions in the handler, and an iconify function. Also includes an output buffer (dump to printer and window), filename completer, script function, undo function, prompt beeper, pathname in window title, close gadget for KS 2.0, etc. ***This is v9.8, an update to v9.6 on disk 398. Shareware, binary only.***

TypingTutor - Simple typing tutor which measures typing speed and adjusts level of difficulty accordingly. Shareware, binary only.

DISK 435

DeluxeBeep - A little program that uses the exec SetFunction call to play a sound sample of your choice whenever a program calls the Intuition DisplayBeep routine. Includes source and instructions on how to install your own sounds.

DynaCADD - Part 2 of a two part demo distribution of DynaCADD from Ditek International. DynaCADD is a professional 2D and 3D CAD package. This demo is fully functional except for disabled save and export functions. Requires a system with 68020/68030 and a 68881/68882 math processor. This disk contains all the files necessary to recreate the DynaCADD demo disk number 2. Files for demo disk 1 can be found on disk 434. This is ***v1.84, binary only.***

Labeler - A label generation program for Epson compatible printers. ***v3.0, binary only, shareware, source available from author.***

DISK 436

AztecArp - Arp interface package fixed to work with Aztec 'C' v5.0. ***v1.9, an update to disk 376,*** includes bug fixes and new features (such as vsprintf/vfprintf/vprintf-like Arp routines and fixes for Kickstart 2.0). Includes source in 'C' and assembler.

BatchRequester - Program which opens an Arp file requester and writes the result to an environment variable. Useful with batchfiles. ***v1.1, source code in Oberon.***

Berserker - Eliminates viruses. Comes with resident handler which continually checks memory to prevent virus infection and a utility to fix programs corrupted by the 'Centurion' and 'Traveling Jack' viruses. ***v5.02, an update to disk 355.*** Contains partial source in assembly.

Input - How to read keyboard input simply and quickly. Includes C source, a sample program, technical discussion, and programming modules that you can 'plug in' to your own C programs. Includes source.

KeyMacro - Keyboard macro program, configurable via a text file, that supports hotkey program execution. You can map up to eight functions to each key, including cursor keys, return key, etc. ***v1.8, an update to v1.6 on disk 398. Includes source.***

LhLib - A shared re-entrant Amiga runtime library featuring highly optimised assembly language versions of the LhArc data compression / decompression routines. Compresses faster and more efficiently than any other currently available implementation of the Lzhuf algorithm. 2 example applications for data compression/decompression, an interface to the Amiga Oberon Compiler, and documentation how to use the library in your own programs are included. This is ***v1.8, binary only.***

MemGuard - Program similar to MemWatch Continually checks the low memory vector table for random trashing. Has been optimised and greatly enhanced to support the 68010, 68020, 68030, etc. microprocessors. ***v4, an update to vIIIa on disk 354, binary only.***

MMB - With MMB, users of 3 button mice under WB 2.0 can use the middle mouse button as a shift key to do multiple selects. Binary only.

MT420d - Printer driver for the Mannesmann Tally MT420d. ***Update to disk 164.***

Zoom - Floppy disk archiving utility based on the data compression / decompression algorithms used by lh.library. Intuition and a Shell interface, supports Kickstart 2.0, is able to add texts and notes to archived output files, knows 66 different bootblock viruses, includes compression parameters and lots more. ***v3.10, binary only.***

DISK 437

CLIwindow - Manipulate the dimensions of a CLI window. ***v1.00. Includes source in assembly.***

Flip - Program which replaces the left-Amiga-N and M commands with screen and window flipping commands. v2.0, includes a technical discussion and source in C and assembly. It is useful to add graphics or sound samples to programs. ***v1.0, includes source in assembler.***

HDClick - Program selector, typically installed in the startup sequence as the 1st command. Has user defined gadgets, a configuration file, an iconify function, and works with both NTSC and PAL systems. ***v1.21, binary only.***

M2Utils - Various source modules for Benchmark Modula-2. Includes ColorReq, an interface to the Dissidents color.library; IFFLib, an interface to Christian Webers iff.library; and ARP, an interface to ARP v1.3.

DISK 440

3DPlot - 3D function plotting program that does hidden line, solid, or contour plots of equations of the form Z=F(X,Y). You can scale the plot, set plot limits, change rotation, etc. Can save and load the plots themselves, as well as the data. ***v2.0, includes source.***

DMake - Version of UNIX make utility. Features multiple dependancies, wildcard support, etc. ***v1.0, an update to v1.0 on disk 246, but now includes source.***

MegaD - Disk utility. Allows an unlimited number of directories to be accessed simultaneously. ***v1.01, shareware, binary only.***

DISK 441

DeksId - Disk / file hexadecimal editor. Useful for editing binary files. ***v1.10, shareware, binary only.***

DiskPrint - Prints labels for 3.5" disks, primarily for PD library disks. ***v2.3.5b, an update to v2.3.5 on disk 433.*** Shareware, binary only.

Dme - V1.42 of Matt's cp for the Amiga, including mail and news. This is Matt's version for the Amiga, based on William Loftus's Amiga UUCP 0.40 release with news code from his 0.60 release, and months of work by Matt to make fixes and add enhancements. ***v1.08D, an update to v1.06D on disk 360,*** and consists of three parts. ***Parts 1 and 2 are on disk 442, and part 3 is on this disk.*** Includes source.

DISK 444

ChinaChallenge - Game like Shanghai. Goal is to remove all parts of the pile, the so called Dragon, step by step. This dragon is composed of 120 different game pieces. You can always find four pieces displaying the same picture or chinese symbols. ***vII, an update to disk 312. Binary only.***

EliteBBS - Online message and file handling system. Features message base, private mail, file library, support for xmodem, ymodem, and zmodem, fully buffered serial I/O routines for top speed, time limits, etc. ***v.31, binary only.***

MissileCmd - Missile Command game in assembly. Features include using a hires interlaced screen, time based events for correct operation on any speed Amiga, multitasking friendly, and sound effects. Binary only.

RegExpLib - Shared library that implements regular expression pattern matching. ***v1.0, binary only.***

UltraF-4 - Demo of a super graphic based floppy format program that can format 4 disks at the same time. Binary only.

DISK 445

MWTape - Tape handler which uses scsi.device to implement serial access to typical streaming tape devices. Includes source.

OptMouse - Use a Mouse Systems M3 serial mouse on the Amiga and instructions which allow a serial mouse to be modified to plug directly into Amiga mouse port. Useful as an example of how to 'fake' mouse movements and may be of use in writing drivers for digitisers, light pens, etc. Includes source.

Tar - A port of a UNIX tar clone that can work with the TAPE: handler (also on this disk) to read and write UNIX tar compatible tapes. Includes source.

TurboText - Demonstration copy of a new text editor. Features many unique capabilities including an impressive ARexx interface with over 140 commands available, full outlining abilities, clipboard support, complete reconfigurability, recorded macros, programmer's calculator, emulations of many popular text editors, and much more. ***v1.0, binary only.***

UUCP - Bug fix for UUCP 1.08 released on disks 442 and 443.

DISK 446

CanonBJ - Printer driver for Canon BJ series of printers. Faster and supports more graphic and text modes than the standard driver. Shareware, binary only.

GamePort - Toolkit with link time and shared libraries that allow easy access to the Game Port device. ***v1.1, binary only.***

Input - Toolkit with link time and shared libraries that allow easy access to the Input device. ***v1.1, binary only.***

PointerLib - Disk based shared library which provides programmers with easy access to custom pointers and a consistent user selected busy pointer. Includes source.

Post - PostScript interpreter which implements the full Adobe language. Supports type 1 and type 3 fonts, screen output, file output, and printer output. Requires: Arp library V39+ and ConMan V1.3+. ***v1.4, an update to v1.3 on disk 408.*** Includes source in C.

DISK 447

AmiBack - Demo of a new backup utility. Features include backup to any AmigaDOS compatible device, configuration files, complete backups, incremental backups, selective backups, file exclusion filter, setting of archive bit, etc. ***v1.0, binary only***, requires AmigaDOS 2.0.

BackPac - Demo of a new backup program. Features include intuition interface, data compression, 907K written per floppy, full and incremental backups, full or selected restores, inclusion/exclusion patterns, user defined config files, multitasking friendly. ***v1.3, binary only.***

DFC - Disk Format and Copy program. ***v5, an update to disk 131. Includes source.***

FlashBack - Demo of a new backup utility. Functional except for the restore operation. Includes backup of multiple partitions in one pass, backup of non-AmigaDOS partitions, backup to a file, automated unattended backups, pattern matching, etc. ***v2.05, binary only.***

SMan - Mandelbrot generator. Uses the mouse to select regions within borders of the Mandelbrot set to zoom up to magnifications of 10**19. Includes math coprocessor support and options to save images as an IFF file. Includes source.

TCL - Port of Tool Command Language, a simple textual language intended primarily for issuing commands to interactive programs such as text editors, debuggers, illustrators, shells, etc. Has simple syntax and is programmable so TCL users can write command procedures to provide more powerful commands than those in the built in set. ***Alpha 2 version, binary only.***

DISK 448

AmigaPet - Screen hack. ***v2.52b, binary only,*** source available from author.

FifoDev - FIFO: is like PIPE: but is based on fifo.library rather than its own implementation. Fifo.library is a general fifo library implementation that supports named fifos, writing to a fifo from a hardware exception, multiple readers on a fifo with each getting the same data stream, efficient reading, and automatic or manual flow control. Programs that require non-blocking IO can access one side of a FIFO: connection via the fifo.library instead of the FIFO: device. ***v2, an update to disk 432.*** Includes some source.

Mkid - Identifier database package that provides a logical extension to 'ctags'. The ID facility stores the locations for all uses of identifers, preprocessor names, and numbers (in decimal, octal, or hex). Includes source.

NightMare - Screen 'hack'. ***v1.0, binary only,*** source available.

OnTime - Holds up a task until a given time and then releases it to run. ***v1.0a, binary only, source available from author.***

PicToANSI - Converts a one bit plane 320x200 IFF picture to a file that displays the picture on any ANSI compatible terminal. Binary only, source available.

SolitaireX - Card game. Includes all possible moves shown with a pulsing green box around the card, reshuffle, unlimited undo, and tournament mode. Binary only.

ST2Amiga - Converts Atari ST format relocatable executables to Amiga format relocatable executables, for subsequent loading into the ReSource disassembler and convert to Amiga. Should also compile and run on an Atari ST. ***v1.1, includes C source.***

Swish - Screen hack that pushes the screen around using the view port, and simulates a floating motion. Binary only, source available.

DISK 449

Globulus - Demo of an arcade game like Q-bert. You control a character and hop him around pathways in a diagonal kind of world, while trying to avoid bad things and catch good things. Binary only.

Handshake - Full featured VT52/VT100/VT102/VT220 terminal emulator. Supports the full VT102 spec. Supports ANSI colors, screen capture, XPR external protocols, user selectable fonts, ARexx, and more. ***v2.20c, an update to v2.12a on disk 172.*** Binary only, shareware.

Iff2ANSI - Turns any two-color low-res IFF picture into ANSI text that can be displayed on any ANSI compatible terminal. ***v0.1, includes source in assembly.***

Shazam - Picture viewer for Dynamic HiRes images created with Macro Paint, the 4096 color high resolution paint program from Lake Forest Logic. includes two sample Dynamic HiRes images and source for display program. ***v1.1***

WonderSound - Additive harmonic instrument design tool with a separate envelope design window and 16 relative harmonic strength and phase angle controls. ***v1.7, an update to v1.6 on disk 428. Binary only.***

DISK 450

AmyVsWalker - Animation from Eric Schwartz. This one has Amy the Squirrel attempting to take a wrench to the 'Walker' from 'The Empire Strikes Back'.

MinRexx - Simple ARexx interface - easily patchable into almost any program. Includes as an example the freedraw program from disk number 1. ***v0.4, an update to disk 188.*** Includes source.

Tabu - Quarter inch cartridge (QIC) tape backup utility. Works with Microbotics HardFrame. May work with other controllers as well (untested). Includes source.

UUCP - A bug fix for UUCP 1.08 released on disks 442 and 443, which had already been finalised at the time this fix reached me so could not be included there.

DISK 451

'Liner - Shareware outliner whose function is to create outlines for notes or export to other programs. 'Liner can save an outline as ASCII text and is clipboard compatible. Utilises a number of AmigaDOS 2.0 features and thus requires 2.0. Support for the new ECS Denise display modes is also included. ***v2.11, an upgrade to v2.00 on disk 394. Includes source in C.***

Convert - Converts 39 different image formats into CBM standard 24 bit IFF files for display on devices such as Black Belt Systems HAM-E product. ***v1.6, binary only.***

ProDrivers - AmigaDOS 1.3 printer drivers for the IBM 4201 and 4202 series of printers. ***v1.0, binary only.***

RCS - The Revision Control System (RCS) manages multiple revisions of text files. RCS automates the storing, retrieval, logging, identification, and merging of revisions. RCS is useful for text that is revised frequently, for example programs, documentation, graphics, papers, form letters, etc. Update to RCS v1.2 on disks 281 and 282, includes only files that have changed.

RRamDisk - Recoverable ram disk. Supports up to 32 units and can be autobooted. Unused sectors are deleted from memory. The ram disk can be formatted, copied to, or used just like a normal disk drive. Binary only.

SnoopDos - A utility for monitoring AmigaDOS calls. In particular, it allows you to see what libraries, devices, fonts, environment variables or startup files a program is looking for. Very useful when you're trying to install a new application. ***v1.2, an update to v1.0 on disk 388. Includes source in C.***

DISK 452

Budget - Program to help with managing personal finances. ***v1.302, an update to v1.301 on disk 416. Binary only.***

FLODemo - Floorplan Construction Set demo. Functional except the Save IFF function is disabled and 15 pages of clip rooms have been replaced by a single sample page. ***v1.48, binary only.***

ImageLab - Performs image processing on IFF pictures. Includes standard image processing functions such as convolution, averaging, smoothing, enhancement, histograms, FFT's, etc. Also includes file convert functions, a clipboard, and other useful functions. ***v2.4, an update to v2.2 on disk 243,*** includes bug fixes, PAL support, overscanned and super-bitmap image support, improved paint operation, better area selection, HAM histograms, and FFTs. Binary only.

MandelPAUG - Version of MandFXP with complete online help, a fully implemented Mandelbrot and Julia set 'movie mode', and many improvements in the user interface. ***v2.1, binary only, source available.***

DISK 453

AmigaTration - 'Concentration' like game where you must locate matching tiles on a grid that can range from 4x4 (easy) to 12x12 (difficult). ***v1.0, binary only.***

Lemmings - Demo of THAT game. Binary only.

ProjMot - Projectile Motion plotter. Plots the path of a projectile fired with a variable initial velocity and angle. Display can be scaled, and time can be accelerated. Returns the distance traveled and the time it took. ***v1.01, includes source.***

Quick - Program launcher. It eliminates the need to open WB windows or remember and type in long pathnames to executables. ***v1.0, binary only.***

DISK 454

Decigel - Software fix for programs that use instructions which are priviledged on the 68010/020/030. Update to disk 18. Includes source in assembly.

Enforcer - Enforcer uses the MMU to build a shroud of protection over anything that is not legal memory. Any empty holes in the address space are marked as illegal. Reads of the system ROMs are allowed, but not writes. With the exception of longword reads of location 4, the lowest 1K of memory is completely protected. When an illegal access is detected, the power LED will flash and a detailed message will be sent out the serial port. Binary only.

Redaktu - PostScript program which runs on PixelScript to edit other PostScript programs. Several examples and a detailed explanation are included.

StillStore - Program designed for freelance, corporate, and broadcast television. It loads and displays IFF images of any resolution interchangeably from a list file or as inputted directly (I.E. random access). The user may easily skip forward or backward one or more pictures in the list. The program can be used 'on air' with no concern that a pull down menu will suddenly appear in the viewable area. It also provides for a precise cue for changing windows or screens. While the main purpose is to load 'news windows' of 1/4 screen size, StillStore can also handle full-sized and overscanned images. Also includes slide show modes and a screen positioning feature. Stillstore is written in 'The Director' from the Right Answers Group. ***v1.2.1, an update to v1.2 on disk 317. Binary only.***

Vortex - Universal accented character converter for Amiga, IBM-PC, MacIntosh, and C64 files written in most West European languages: Danish, Finnish, French, German, Italian, Islandic, Norwegian, Spanish, Swedish, and more. Works with either ASCII or Word Perfect files. ***v1.5, includes source.***

DISK 455

AngusCopy - Disk copy program with intuition user interface. ***v2.0, shareware,*** includes source in Modula II.

ConvMacF - Converts MacIntosh type 1 Adobe fonts to a format usable on the Amiga. Reads a compressed MacIntosh format Adobe font file and unpacks it to an ASCII text file, which permits sending the font to a printer as a PostScript program. Includes source.

MemMon - Small memory monitor. VII, shareware, includes source in Modula II.

Vlt - VLT is both a VT100 emulator and a Tektronix (4014 plus subset of 4105) emulator. Features include use of ARP, an ARexx port, X-Modem 1K/CRC and Kermit protocols, support for additional serial ports, external file transfer protocols (XPR), a 'chat' mode, and scrollback/review/history buffer. It comes in two versions, one with Tektronix emulation, and one without. The Tektronix emulation allows saving IFF files, PostScript files, and printing bitmaps to the printer. ***v5.034, an update to v4.846 on disk 410. Binary only.***

DISK 456

CheatSheet - Compilation of cheats, hints, backdoors, helpful bugs, passwords, codes, solves, and walkthroughs for over 150 Amiga games. February 1st, 1991 edition, an update to January 1st edition on disk 431.

CManual - Parts 1 and 2 of a complete C manual which describes how to open and work with Screens, Windows, Graphics, Gadgets, Requesters, Alerts, Menus, IDCMP, Sprites, VSprites, AmigaDOS, Low Level Graphics Routines, Hints and Tips, etc. The manual also explains how to use your C compiler. Manual consists of 15 chapters together with more than 100 fully executable examples with source code.***v2.0, an update to v1.0 on disk 337.*** Because of its size, it is distributed on two library disks, parts 1 and 2 on disk 456 and parts 3 and 4 on disk 457.

DISK 457

CManual - Parts 3 and 4 of a complete C manual which describes how to open and work with Screens, Windows, Graphics, Gadgets, Requesters, Alerts, Menus, IDCMP, Sprites, VSprites, AmigaDOS, Low Level Graphics Routines, Hints and Tips, etc. ***v2.0, an update to v1.0 on disk 337.*** Because of its size, it is distributed on two library disks, parts 1 and 2 on disk 456 and parts 3 and 4 on disk 457.

Line - Shell written to enhance the bare-bones CLI with features that many people find useful in the UNIX csh, including history, aliases, a directory stack, etc. ***v1.15, includes source.***

QuickReq - An 'Ask utility' to replace the 'ask' command from AmigaDOS. QuickReq can load arguments from files thus making it possible to handle long questions and texts. Also supports optional line breaks in BodyText, an option to center text to window, DisplayBeep when requester is activated, setting your own FrontPen number, specifying requesters width and height and all kinds of overscan displays. 1st public release. ***v2.0, includes source.***

DISK 458

ATCopy - Copy files from the Amiga side of a system equipped with a PC/AT bridgeboard, to the PC side, using wildcards. Copies directly through the shared memory. Supports CLI and WB usage. ***v2.2, an update to v2.1 on disk 429.*** New features include much faster copying and selection of all options using WB. Shareware, binary only.

Csh - v4.02a of a csh like shell derived from Matt Dillon's shell, v2.07. ***Update to v4.01a on disk 331.*** Changes include bug fixes, preservation of file protection bits by cp, some new commands, and reformatted documentation. Includes source.

GIFMachine - Converts CompuServe GIF image files into IFF SHAM and 24bit ILBMs. Requires KickStart v2.0 or greater to run. ***v2.116, an update to v2.104 on disk 405. Includes source.***

TeXify - Package of ARexx scripts, for CygnusEd users, which allows total control of AmigaTex from within CED. ***v1.10e, binary only.***

DISK 459

AmiDock - Amiga version of the NeXT's 'dock', but more versatile and not as limited. ***v1.2.4, binary only.***

Conquest - Lore of Conquest - war game. See description of disk 432. ***v1.3, an update to v1.2 on disk 432. Binary only, shareware.***

Rxgen - ARexx library that allows you to call any function of almost any Amiga library from an ARexx program. ***v1.0, binary only.***

XprZmodem - Amiga shared library which provides Z-Modem file transfer capability to any XPR-compatible communications program. ***v2.10, an update to v2.0 on disk 261. Includes source.***

Zoom - Fast floppy disk archiving utility based on the data compression / decompression algorithms used by lh.library. Has an intuition and a Shell interface, fully supports Kickstart 2.0, is able to add texts and notes to archived output files, knows 66 different bootblock viruses, includes a number of compression parameters (such as encryption of the output file) and lots more. ***v4.1, an update to v3.10 on disk 436. Binary only.***

DISK 460

JMenu - AmigaDOS script to display a menu, wait for the user to make a selection either with the mouse or the keyboard, and return the selection back to the script through an environment variable. It can also immediately execute any valid AmigaDOS command based upon the menu selection. The maximum size of the menu is based on the screen resolution and font size, up to a maximum of 26 selections of a maximum of 80 characters each and an optional title area of up to 4 lines. ***v1.1, binary only.***

NetHack - Screen oriented fantasy game where your goal is to grab as much treasure as you can, retrieve the Amulet of Yendor, and escape the Mazes of Menace alive. On the screen is a map of where you have been and what you have seen on the current dungeon level. As you explore more of the level, it appears on the screen in front of you. Nethack generates a new dungeon every time it is played, thus even veteran players will continue to find it entertaining and exciting. ***v3.0, patch level 10, an update to v2.3 on disks 189 and 190.*** Binary only, source available.

ShadowMaker - Demo of an Intuition based Font shadow generator. ***v1.5, an update to disk 428. Binary only.***

DISK 461

DFrags - Disk Fragmentation reporting utility. Displays disk fragmentation for both floppy and hard disk devices. Does not attempt to change any data, just gives a report. ***v2.02, shareware, binary only.***

DiskPrint - Prints labels for 3.5" disks, primarily for PD library disks. Label data files can be loaded into memory so labels for most PD disks are available after a few mouse clicks. Features include 3 different label sizes, default file, different label library functions, Amiga-Lib Disk contents read-in and easy handling. ***v2.7.2, an update to v2.3.5b on disk 441. Shareware, binary only.***

Logic - Game - reminiscent of 'life'. ***v2.0, includes source in assembly.***

MandAnim - Mandelbrot animation program that allows you to easily generate series of lo-res/16-color pictures. Features full mouse and/or keyboard operation, zooms, auto-save, high (+cheat) speed, iconisation, preview, ease, etc. The generated pictures all remember their positions and settings so they can be reloaded. ***v1.2, an update to v1.1 on disk 387. Binary only.***

NewList - Powerful LIST replacement. Supports many features including sorts, character filters, case sensativity, most options offered by LIST, date construction, UNIX wildcards, and much more. Sort routines are VERY fast and memory usage is minimal. ***v4.5, binary only.***

SBall - Game using the joystick to control a 'bouncing ball'. Binary only.

TDraw - Window Title Bar Pattern Editor for use with TBar. Load, save, test, and edit patterns. Saves script files that can be executed later to change window patterns at anytime (like at boot-up). Includes TRand, a utility to pick a random TBar file so your WB will look different each time you reboot. ***v1.0, binary only.***

Tron - Game based on lightcycle race sequence from science fiction film 'Tron'. ***v1.0,*** unrelated to other Tron releases in the library. Includes source in assembly.

DISK 462

CacheDisk - Improves floppy disk throughput by caching entire tracks of data. Buffers disk reads and writes for maximum speed gain, user setable number of buffers for each drive. ***v1.0, binary only.***

DisTerm - The dissidents telecommunication program. Has built in phone directory requester, autodial, various file transfer protocols, ASCII send and capture, full/half duplex, split window, color requester, macro keys, selectable baud, CR/LF expansion, automatically configured per phone entry. Binary only.

Humartia - An arcade game where each player controls a jet and must destroy the opponents jet,

cludes source.

NewList - A powerful LIST replacement. Supports many features including sorts, character filters, case sensitivity, most options offered by LIST, date construction, UNIX wildcards, and much more. Sort routines are very fast and memory usage is minimal. ***v4.9, an update to v4.5 on disk 461. Binary only.***

DISK 479

CheckPrt - A small program for checking the presence of a parallel printer from within a script file. Binary only.

TDP - A small trackdisplay program that uses whatever screen is up front. Binary only.

UUCP - An implementation of uucp, including mail and news. ***v1.13D, an update to v1.08D on disk 442,*** and consists of four parts. Parts 1 and 2 are on this disk, and parts 3 and 4 are on disk 480. Includes source.

DISK 480

Cryptor - Encrypts and decrypts data (files). It uses a mathematical algorithm with password key protection. Has both English and German versions and documentation. ***v1.0, binary only.***

NoCare - Speeds up your windowing environment. The OpenWindow vector is patched. When someone tries to open a window in the WB screen, the lower refreshbit in the nw_Flags field is cleared. This way, only NOCAREREFRESH windows will be opened, resulting in faster window movements. Windows opened in custom screens are not affected. ***v1.5. Assembly source included.***

TplEdit - A gadtools template editor. It is able to generate nearly standalone C source code. The program will only run under DOS 2.0, Kickstart 37.73 or higher. ***v1.00 Alpha. Includes source.***

UUCP - Implementation of uucp for the Amiga, including mail and news. This is Matt's version for the Amiga, based on William Loftus's Amiga UUCP 0.40 release with news code from his 0.60 release, and months of work by Matt to make fixes and add enhancements. ***v1.13D, an update to v1.08D on disk 442***, and consists of four parts. Parts 1 and 2 are on disk 479, and parts 3 and 4 are on this disk. Includes source.

DISK 481

K1 - An editor program for the Kawai K1-II synthesiser. Includes a bankloader for single-patches and multi-patches, a single- patch editor, a multi-patch editor, and support for the effect-session and K1 controllers. ***v4.8, binary only.***

MCP - 'TRON' like cycle race game for up to four players. V13.76, update to disk 338, includes source in assembly.

TLPatch - Allows corrections in pronunciation for programs that use the Translate() function. It allows you to extract the exception table from the translator.library, use a text editor to edit the table, and then restore it back into the library. ***v1.0, includes source.***

WaveMaker - Intended to give beginning music and physics students a hands on feel for how complex waves are made by adding a harmonic series of sine waves. A fundamental and up to seven harmonics are available. The resulting waveform can be displayed on the screen or played on the audio device using the keyboard like a piano. ***v1.2, an update to v1.1 on disk 318,*** with several bugs fixed, more efficient code, and a new display option. Includes source.

DISK 482

Ephemer - Calculates the positions of the sun, moon, and planets for any date and any place. Includes source in HiSoft BASIC.

Molec3D - Interactive 3D solid modelling program for molecules. Produces a graphic, three dimensional representation of molecules, based on 3D coordinates data from geometry optimisation programs, X-ray measurements, or any other source. Can handle up to 500 atoms at a time. Requires 1Mb. ***v1.022, binary only.***

DISK 483

ButExchange - Input handler to help left handed Amiga users. It reverses the function of the mouse buttons, so that the left button becomes the right and vice versa. Very small, uses only 168 bytes of memory. ***v1.0, includes source in assembler.***

ColorSamples - Executable color samples made by ColorCatch from disk 396. Contains the 'old' colors from kickstart 1.3 and the 'new' colors from kickstart 2.0. Very useful because some programs/icons look awful when displayed in colors other than the ones they were created for.

InputLock - Input handler to help Amiga users who have cats other pets (or children) that mess with the Amiga as soon as it is left for a second. It installs an input handler which lets you lock the keyboard and mouse by pressing a few buttons. Very small, uses only 190 bytes of memory. ***v1.0, includes source in assembler.***

MED - Music editor that can be used to compose music for demos/games etc. It can be used as a stand-alone music program as well. The features include built-in sample editor, synthetic sound editor, MIDI support (up to 16 tracks), and options to read/write NoiseTracker modules. Included are routines that allow programmers to easily incorporate music made with MED in their programs. ***v3.10, an update to v3.00 on disk 476. Binary only.***

MouseXY - Opens a little window in which it shows the mouse coordinates and the color at that position. It can be moved from screen to screen and is able to show coordinates even when you are moving/resizing windows or moving WB icons. ***v1.0, includes source in assembler.***

PicSaver - Allows you cut rectangular portions of any screen and store them on disk as IFF ILBM files. Also allows easy saving of windows and entire screens to disk. ***v1.0, includes source in assembler.***

PointerX - Spins the hands of any pointer that looks like the standard AmigaDOS 2.0 WB 'busy' pointer (a clock). Will also work with any application that uses the same pointer. Includes source.

PSX - A public screen manager for AmigaDOS 2.0. Lets you open, manipulate, and close public screens, set the global public screen bits, and provides a good example of using GadTools and ReadArgs. ***v1.1, an update to disk 418. Includes source.***

PWKeys - Input handler. Manipulate windows and screens by pressing keys on the keyboard. It currently lets you perform 17 different functions. Includes an interactive program to define hotkeys. Very small, uses only 1124 bytes of memory. ***v1.0, includes source in assembler.***

TD - Like TrackDisplay on disk 399. It monitors and displays the current track for each floppy disk connected to the Amiga. ***v1.0, includes source in assembler.***

DISK 484

BootPic - Install nearly any IFF picture that you like in place of the WB hand that appears after a reset. ***v1.0, includes source in assembly.***

EZAsm - Combines parts of 'C' with 68000 assembly language. The resulting code is optimised as much as possible. Now bundled with A68k and Blink for a complete programming environment. New 'c.lib' functions and more. ***v1.5, an update to v1.31 on disk 431.*** Includes example source and executable files. Binary only.

MSClock - Clock. Displays memory, date, time and online time (if connected to another computer via modem) in the titlebar of the WB screen. ***v1.3, includes source.***

Spright - Spright is a sprite making utility. Simple or attached sprites can be saved to a file ready to be added to your program. The colors used with the sprite(s) will also be saved. ***v1.2, binary only.***

TextPlus - Word processor. ***v3.0, an update to v2.2E on disk 465.*** New features include the ability to print footnotes and serial letters, multiple windows, an ARexx-interface with 120 commands, powerful block-operations, ANSI-compatibility, ability to load files crunched by PowerPacker, etc. Shareware, binary only.

Viewer - Displays IFF pictures fast. ***v1.0.*** Includes source in EZAsm.

DISK 485

Drawmap - Draws representations of the Earth's surface. Includes a completely rewritten user interface and some new functions. ***v2.25d, an update to v2.0 on disk 315. Includes source.***

NiftyTerm - NiftyTerm is an h19/VT102/VT52 emulator. It was originally designed to be used with DNet, but it has been expanded so that it may be used as a normal terminal emulator. Niftyterm was designed to be a good emulation of these terminals, as well as being fairly small and fast. ***v1.2, an update to v1.0 on disk 403. Binary only, source available.***

Spades - Card game 'Spades'. It is a one player version, where the computer plays your partner and two opponents. ***v1.2, an update to v1.1 on disk 392. Includes source in C.***

DISK 486

Metafont - Port of the Metafont package, a program to create TeX fonts. Includes versions for 68000 and 68020. Disk 487 contains a copy of the Metafont font source files from the TeX distribution tape, including the Computer Modern Roman and the LaTeX fonts. ***v2.7, binary only.***

SoundEd - Demo of an 8SVX sound editing package, written in machine code for optimum speed and minimum size. Can also be used for digitising with SoundEd or Perfect Sound hardware. ***v1.0, demo, binary only.***

DISK 487

AssignX - A WB2.0 only utility to create assignments when you get a 'Please insert volume' requester. Also lets you cancel the request, forever. Installs by dropping into your WBStartup drawer. ***v1.2, an update to v1.0 on disk 475. Includes source.***

MFSrc - Copy of the Metafont font source files from the TeX distribution tape, suitable for use with the Amiga port of Metafont on disk 486. Included are the Computer Modern Roman and the LaTeX fonts. These should be sufficient to run a normal TeX installation.

PPrint - Print utility, designed for all those who slowly but surely become frustrated with programmers who think that they can do a form feed better than their printer can. This one relies on the printer itself to do the formatting, and on the program to send the settings. Includes a full icon driven user interface, the ability to convert tabs to any size, and the ability to save a number of standard settings. ***v1.10, includes source.***

DISK 488

LordOfHosts - Game for 2 players based on a board game called 'Shogun'. Features include flexible mouse/joystick controls, undo and redo of up to 500 preceding steps, fully intuition-ised user interface. ***v1.0, complete source code, precompiled include files and debugger files included.***

MidiTools - Several utility programs for a Midi system. Update to disk 159. Includes 3 new programs, two of which are synth editors, and compatibility with AmigaDOS 2.0. Binary only.

SGD - Makes it possible to delete games, that are saved by any of the existing Sierra adventures (e.g. Leisure Suit Larry). Has a LEARN option for including new adventures. ***v1.0, binary only.***

SuperDuper - Disk copier and formatter. Can make up to 4 unverified copies from a ram buffer in 36 seconds. Verified copies from a ram buffer take 67 seconds for one destination drive, plus 34 seconds for each additional destination. Binary only.

View80 - Scrolling text file reader with three scrolling modes controllable via keyboard or mouse. Opens file requestor if no filename is given. Automatically configures screen sise for PAL or NTSC machine. ***v2.0, an update to v1.1 on disk 365. Binary only.***

DISK 489

Automata - Cellular automaton simulation. Virtually every aspect of the simulation can be altered, saved, and later recalled. Also supplies many powerful editing functions (such as patterns, rotations, reflections, etc) for creating and modifying cell configurations. Additional features include editable icons, an immense variety of rules from which to choose, 'music' which changes as the cell configuration changes and methods to speed execution from 3 to 60 (or more) generations per second. Binary only.

MkBmap - Builds Amiga format bitmapped fonts from PostScript fonts. Uses the library 'post.library' (disk 468) to render the characters. Best results are obtained with fully hinted type 1 fonts, such as those supplied by Adobe and other vendors. ***v1.0, includes source.***

SKsh - A ksh-like shell. Some of its features include command substitution, shell functions with parameters, aliases, local variables, local functions, local aliases, powerful control structures and tests, emacs style line editing and history functions, I/O redirection, pipes, large variety of built-in commands, Unix style wildcards, Unix style filename conventions, filename completion, and coexistence with scripts from other shells. Very well documented. ***v1.7, an update to v1.6 on disk 381. Lots of new features and bug fixes. Binary only.***

DISK 490

AmiCheck - Checkbook program. Allows you to enter your checks in a very natural style, giving you a running balance as you do so. Options include reconciling your checkbook, starting new registers with outstanding checks only, printing all, cleared, outstandid or selected entries, and more. ***v2.0, shareware, binary only,*** requires AmigaDOS 2.0.

AntiLemmin - Another great, humorous, animation from Eric Schwartz. This one was obviously inspired by the wonderful Lemmings game. Lasts a full two minutes and ten seconds. Requires at least 2 Mb of memory.

Recolor - Configurable icon recoloring tool that can swap or shift the colors of selected icons and truncate the depth of the icon color map. Binary only.

DISK 491

bBasell - Database program using an intuition interface. Stores, sorts, and searches for information. Limited to 9 fields in each record. Features include fast sorting, search in any field, and best of all, it's really easy to use. Binary only.

DICE - Dillon's Integrated C Enviroment. A C frontend, pre- processor, C compiler, assembler, linker, and support libraries. Features include ANSI compatibility, many code optimisations, and auto init routines (user routines called during startup before main is called). ***v2.06.21, an update to v2.06.15 on disk 466.*** Includes bug fixes and experimental dynamic object module loading support. Shareware, binary only.

fBlanker - For blanking the screen after a defined period of no action. Shows a multicolor Amiga checkmark. ***v1.1, binary only,*** requires AmigaDOS 2.0.

Klondike - Single player card game. ***v1.1c, binary only. Shareware.***

DISK 492

LoanCalc - Keyboard and mouse driven mortgage utility. Although similar programs exist, this one is unique in that it is designed to track 'Open' mortgages that allow any size payment to be made at any time, as well as providing a printed amortisation table for fixed mortgages with monthly, semi-monthly, bi-weekly and weekly payment schedules. ***v1.4, an update to v1.2 on disk 366. Binary only.***

SBProDemo - Demo of Superbase Professional 4 complete with sample application. The limitations are 35 records max per file, programs can be edited but not saved, and forms can be edited but not saved or printed. In every other respect this is identical to the release product. SBpro4 is compatible with SB4 Windows V1.21. V1.0, binary only.

DISK 493

AmiBack - Demo of a new backup utility. Features include backup to any AmigaDOS compatible device (such as floppies, removable hard disks, fixed media hard disk, and tape drives), no copy protection, configuration files, complete backups, incremental backups, selective backups, file exclusion filter, setting of archive bit, etc. Demo does not have restore, compare, or scheduler. ***v1.03, an update to v1.0 on disk 447. Binary only.***

AmigaLib - A library of WB/ROM-Kernel interface routines for use with AbSoft Fortran. Includes source.

AmiGantt - A project definition and management tool designed to create a simple, interactive method of outlining the task required to complete a particular project, using the GANTT chart as the input format. AmiGantt displays the project in a multi- window mode with separate windows for the GANTT chart, task information input, resource histogram display, and Pert chart display. Up to 500 tasks may be defined for any project, and a project may contain other projects as tasks. ***v4.0.0, an update to v3.0.0 on disk 248. Shareware, binary only.***

BBFormat - Floppy disk formatter for diskettes with hard errors. Bad media areas are mapped out so AmigaDOS will not use them. Presently not intuitionised, runs from CLI only. V5/7/91, includes source.

BizCalc - Loan calculator that calculates weekly and biweekly loans. Can generate amortisation tables to the screen, to the printer, or to a file. Uses menus, bottons, or keyboard commands, and iconifies. Has 6 decimal precision option and more. ***v1.1, an and expansion of MortCalc 2.5 on disk 385. Binary only.***

Connex - 'Connect-4' type game. Shareware, binary only.

ScreenMod - Modifies most of the parameters of any screen structure in memory, including colors and viewmodes. Useful for PAL programs which open their screens low. Has a companion program to automate changes later on. ***v1.0, includes source.***

DISK 494

Bref - Cross reference program for AmigaBASIC code. Generates a list of the BASIC code with lines sequentially numbered, plus a table showing all variables and labels used in the code, and the line numbers where they were used. ***v2.0, an update to v1.0 on disk 283.*** This is a major revision, including a new intuition interface. Includes source.

ButExchange - Input handler to help left handed Amiga users. It reverses the function of the mouse buttons, so that the left button becomes the right and vice versa. Very small, uses only 168 bytes of memory. ***v1.1, an update to v1.0 on disk 483. Includes source in assembler.***

which is accomplished when a jet has been hit 75 by either missiles or air mines. Binary only.

SeaLance - Game based on a Trident submarine simulator. Use the weapons at your disposal to liberate the earth's cities from alien occupation. Binary only.

Up&Down - The object of this game is to get four of your chips in a row (across, down, or diagonally) without letting your opponent get his chips in a row first. Binary only.

DISK 463

ExecRexx - Turns an ARexx script into an executable which can be run from WB or the CLI. Binary only.

FileIO - File requester library based upon an example by R.J. Mical. Has numerous features, including uses other than disk I/O. ***v1.C, update to v1.9 on disk 393. Binary only.***

ILBM - The ilbm reader/writer library 0.5 and examples. Also can be used for non-ILBM files. Binary only.

LibTool - Converts C or assembly code into an Amiga shared library. Also makes all support files including C and assembly include files, bmap files, Manx and Lattice pragmas, C glue stubs. Can also make a device. Binary only.

PrintSpool - Shared library to easily add text or graphics print spooling to any C or assembly program. Binary only.

RexxIntuition - ARexx function library which allows ARexx scripts to open windows/screens, add menus, add proportional, boolean, and string gadgets, use requesters, load/save ILBM pictures, use a color requester, print text in various colors, sizes, and styles, draw colored lines and boxes, print text or graphics, etc. Binary only.

RexxLib - Shared library - used to add an ARexx implementation to any program. Binary only.

DISK 464

Cross - Creates crossword puzzles. Has a message data file to allow easy translation into most languages. ***v3.3, includes source in M2Amiga Modula-2.***

FileWindow - Public domain file requester. Dynamically allocates memory to hold the file names so the only limitation is the amount of memory available. Includes a filter option to limit display of filenames to only ones with a specific extension. Names are automatically sorted while they are being read and displayed. Has been enhanced by Bernd Schied for more device gadgets, renaming of files and directories, ANSI-C source, and more. ***Update to v1.10 on disk 336. Includes source.***

PictureEditor - An 'object-oriented' paint program that allows you to create, modify, load, and save hierarchical structured picture objects. ***v1.12, shareware, binary only.***

Scan - Displays the individual character contents of any file. Displays the ASCII and Hex values, count and percentage of total along with actual character (if displayable). Listing is displayed on a console window or optionally written to an output file. Possible uses would be to scan files for binary characters, relative character counts, matching numbers of special characters, determining LF/CR configurations, etc. ***v1.0, includes source.***

DISK 465

FCS - Pre-release of an iterated Fractal Construction Set program, used to generate iterated fractal images such as Sierpinski's triangle, ferns, etc. ***v0.99, binary only.***

Lz - An Lharc compatible archiver that is reported to be much faster than other available archivers and produce smaller archives. ***v1.01, shareware, binary only.***

MRBackUp - Hard disk backup. Does a file by file copy to standard AmigaDOS floppy disks. Includes an intuition interface and file compression. ***v5.02a, an update to v3.4 on disk 327. Shareware, binary only.***

TextPlus - Word processor. ***v2.2E, the same as on disk 375.*** This release includes the source (the description on disk 375 claims the source is included but it is not).

DISK 466

DICE - Dillon's Integrated C Enviroment. A C frontend, pre- processor, C compiler, assembler, linker, and support libraries. Features include ANSI compatibility, many code optimisations, and autoinit routines (user routines called during startup before main is called). ***v2.06.15 (2.06B), an update to v2.06.14 on disk 443. Shareware, binary only.***

HamLabDemo - Demo of an expandable image format convert utility. Converts GIF, TIFF, PBMPLUS, Spectrum 512, MTV, QRT, and Sun images into HAM and SHAM. Images can be scaled, dithered, color corrected, and cropped. This demo vis limited to processing images of 512 by 512 pixels or less. ***v1.1, shareware, binary only.***

Mosaic - Game played with a set of 81 two-by-two tiles on a 24-by-24 playing area. Objective is to place your tiles such that squares of the same pattern are connected as much as possible. ***v1.0, includes source.***

StopWatch - Stop watch application with the precision of one milli- second (variable), which scans the joystick button. Full multitasking capability and intuition interfacing, ARexx port for parameter and result handling, and supports all non-proportional WB fonts. Written in Modula 2 and assembler. ***v2.0, binary only.***

DISK 467

Multiplot - Intuitive data plotting program featuring flexible input options, arbitrary text addition, automatic scaling, zoom and slide with clipping at boundaries, a range of output file formats and publication quality printed output. WB printers are supported via transparent use of the PLT: device. ***vXLNd, an update to vXLNc on disk 373.*** Includes bug fixes, many new features, postscript and HP LaserJet III support, logarithmic axes.

Snap - Use the mouse to mark characters anywhere on the screen, and then paste them somewhere else, such as in another CLI or in a string gadget. Checks what font is used in the window you snap from and will look for the position of the characters automatically. Recognises all non proportional fonts of up to 24 pixels wide and of any height. Works with AmigaDOS 2.0. ***v1.0, binary only.***

DISK 468

Post - PostScript interpreter which implements the full Adobe language. Supports type 1 and type 3 fonts, screen output, file output, and printer output. Requires Arp library V39+ and ConMan V1.3+. ***v1.5, an update to v1.4 on disk 446.*** Changes include better type 1 font rendering and some bug fixes. Includes source in C.

Vlt - Vlt v5.045, a partial update to v5.034 on disk 455. Includes new executables with and without Tektronix emulation, and a new xprascii library. You still need the files from disk 455 to make a complete distribution. Binary only.

DISK 469

AirAce - WWI biplane shoot'em up game built using Accolade's Shoot'Em Up Construction Kit. Binary only.

FastLife - A fast life program featuring an intuition interface, four screen sizes, 19 generations/second, and 153 patterns in text file format. V1.0, binary only.

Triangle - Game like chinese checkers, consisting of fourteen pegs and one empty hole in a triangular formation. The object of the game is to leave one peg in the original empty hole or have eight pegs on the board and no possible moves. ***v1.1, includes source in BASIC.***

WordPuzzle - Object of the game is to find a word in a puzzle arrangement. There are 3 variations of the game. ***v1.1, includes source in BASIC.***

DISK 470

BCF - FORTRAN-77 compiler, linker, and runtime support library. No Amiga specific hooks, just vanilla FORTRAN. ANSI compatible with extensions. ***v1.3c, binary only.***

KeyMenu - Alternative to Intuition's method of menu selection via the keyboard. Uses one key to activate the menu for the currently active window, the cursor keys to move through the menu as you choose, and the return key to select the desired menu item or escape key to abort selection. Works with AmigaDOS 2.0 mouse accelerator and has option to blank Intuition's pointer. ***v1.03, includes assembly source.***

TripleYachtZ - Implementation and variation of the game 'Yacht'. Plays both Single (the standard game) and Triple, which differs from normal Yacht-Z in that all scores in the 3rd column of your scorecard are worth three times as much as the normal value and those in the 2nd are worth double. ***v1.2, binary only.***

BTNTape - A 'Better Than Nothing' SCSI tape device handler. It provides flat file access to a SCSI tape drive from application programs using simple DOS calls to Read() and Write(). It can also be used with the Amiga TAR utility for disk backups. It requires a 'SCSI-direct' compatible SCSI bus adapter but will also work with the A2090(A). It now supports many more tape drives, and has some new features. ***v2.0, an update to v1.0 on disk 392. Includes source.***

MachIII - A 'mouse accelerator' program that also includes hotkeys, features of sun mouse, clicktofront, popCLI, title bar clock with a bbs online charge accumulator, Arexx support and much more. Updates for WB 2.0 have been added along with many fixes and new features. ***v3.1, an update to v3.0 on disk 378. Binary only.***

MoleWt - MoleWt is a molecular weight calculator. The program accepts a chemical formula and returns the molecular weight. ***v1.01, binary only.***

Uedit - A nice shareware editor with learn mode, a command language, menu customisation, hypertext, online help, a teach mode, split windows, copy and paste, undo, features. ***v2.6e, an update to v2.6c on disk 415. Binary only.***

DISK 472

CNewsBin - This is part 1 of a C News distribution for the Amiga. This part includes all the binary and text files necessary to set up and run C News. Part 2 is available on disk 473 and contains the source. C News uses UUCP, such as Matt Dillons implementation (see disks 479 and 480) or that included with this software's previous version (disk 319). This package has been reworked and now includes a newsreader, AmigaRN (Sharware). All major (and a few minor) features of Unix C News are implemented. ***Release 15-Dec-90, an update to the orginal on disks 318 and 319.***

ICalc - An expression calculator that works with real and complex numbers, has arbitrarily-named variables and user-defined functions, startup files and more. ***v1.0, includes source.***

IFFBeep - Replace the screen flash of DisplayBeep() with any IFF 8SVX sound file. Also plays sounds on disk insertion/removal. ***v2.0, binary only.***

DISK 473

BigBrother - Virus infection detection program. It runs as a normal task and checks every 1 second the important memory locations in the Amiga. Capable of starting a new shell, starting script files, viewing and installing bootblocks. Includes assembly source.

CNewsSrc - This is part 2 of a C News distribution for the Amiga. This part includes all the source for C News. Part 1 is available on disk 472 and includes all the binary and text files necessary to set up and run C News on the Amiga. CNews uses UUCP, such as Matt Dillons implementation (see disks 479 and 480) or that included with this sofware's previous version (disk 319). This package has been reworked and now includes a newsreader, AmigaRN (Sharware). All major (and a few minor) features of Unix C News are implemented. ***Release 15-Dec-90, an update to the orginal on disks 318 and 319.***

Family_Sol - A preliminary of the Authors 'Family Solitair' card game. A standard game of Solitair with options for multiple players, sound etc. Binary only.

MissileCmd - A fast Missile Command game written in assembly. Features include using a hires interlaced screen, time based events for correct operation on any speed Amiga, multitasking friendly, and sound effects. ***v2, an update to disk 444, with bug fixes and enhancements. Binary only.***

DISK 474

Aequipot - Renders multicolor pictures using an algorithm based on electrostatic effects. Renders in low-res and high- res, and in two speed/quality modes. Includes both PAL and NTSC versions of the program. English and German docs. ***v1.06, includes source in PCQ, freeware.***

AmiDock - AmiDock is an Amiga version of the NeXT's Dock facility. It will open up a small window on your WB full of little IFF brushes, Each brush represents an application, like an ICON but it's a brush. Click on the brush and your application will start. ***v1.2.4. Shareware, binary only.***

CrcLists - Complete CRC check files for disks 401-470 using the brik program. These were made directly from my master disks. ***Update to the lists on disk 401.***

Enforcer - Detects/protects against illegal memory hits. Compatible with all DOS versions & machines (requires a Memory Management Unit or 68030 processor). The low 1K of memory and all areas that are not RAM are protected from CPU reads or writes. ROM is marked as read-only. ***v2.6f, binary only.***

GreekFont - A 12 point font with Greek letters. ***v1.0.*** Author: D. Moosbrugger

Imperium - Strategic, 'RISK' style game for up to four players. Based in the ancient times of Rome, Athens, Alexandria and Carthago. Binary only, shareware ($10), Manx-C source available from author. ***English v1.66E and German v1.79D. Update to v1.50E on Disk 362.***

DISK 475

AssignX - A 2.0-only utility to create assignments when you get a 'Please insert volume' requester. Also lets you cancel the request, forever. Installs by dropping into your WBStartup drawer. ***v1.0, includes source.***

Blankette - Screen blanker/dimmer. Very nice on your system, very little CPU time, compatible with just about everything. Dims screen rather than going black. Includes assembler source.

CITAS - Convert ILBM To Assembler Source. CITAS allows one to easily put graphics into his/her own programs. CITAS takes a standard IFF ILBM image file and converts it into either assembler or 'C' source code. Designed for blitter image control, all of the necessary labels are generated, along with color map information, mask generation, and other options. ***v2.0, shareware, binary only.***

GadgetED - For creating and editing intuition gadgets. Includes a palette editor, generation of either C or assembly source, and binary saving for later loading and editing. Also comes with 'PatchGE', a program for converting the original format of GadgetED binaries to be loadable by this and future versions. ***v2.3, an update to v2.0 on disk 438, includes source.***

ToolLib - A shared library containing 45 useful functions for all kinds of programs. There are functions for ports, sorting, gadgets, memory, string, directory and file handling, etc. ***v8.1, an update to v7.6 on disk 438, includes source.***

DISK 476

Browser - A programmer's 'Workbench'. Allows you to easily and conveniently move, copy, rename, and delete files & directories from a CLI environment. ***v1.7, an update to disk 180, binary only.***

MED - Music editor - like SoundTracker. A song consists of up to 50 blocks of music, which can be played in any order. Editing features include cut/paste/copy tracks or blocks, changing the vibrato, tempo, crescendo, and note volume. Other features include switching of the low-pass-filter on or off on a per song basis, and a cute little animated pointer of a guy doing 'jumping jacks' in time to the music! Improvements include AmigaDOS 2.0 compatibility. ***v3.00, an update to v2.13 on disk 424. Binary only.***

Mostra - IFF utility featuring real-time unpacking scroll, dozens of options, 'smart' analysis of any IFF file (FORMs, LISTs,... also nested ILBM!), total control over display modes, simple slideshow processing, pattern matching, SHAM, an external link to show Dynamic Mode pictures, double buffering, fast decompression, color cycling, TeXdocs, startup files for easy custom configurations and complete WB support, through ToolTypes and Style icons! ***v1.14, an update to v1.0 on disk 330. Binary only.***

ToolManager - ToolManager is a full featured program to add programs (either WB or CLI) to the tools menu of the 2.x WB. Programs can be added by dragging their icons onto the ToolManager 'config' window or the optional ToolManager icon or by editing the config file. Requires WB 2.0. ***v1.3, an update to disk 442. Includes source.***

DISK 477

IRMaster - This is a hardware/software project to allow the Amiga to read an infrared remote control via the parallel port. Includes an ILBM of the schematic for a simple interface to the A1000 parallel port, some modifications are needed for other Amigas. The source code and executable for a reader program are included. For further functionality modifications to the source can be performed.

MegaBall - New version of the game 'Ball' by the same author. It is a Breakout type game, and is very good. Complete with impressive sound. Binary only.

NoDelete - This program pops up a requestor to alert you of a file deletion being attempted via DeleteFile() and allows you accept or cancel it. This also pertains to any files you attempt to delete via 'delete'. ***v1.5a source is included.***

DISK 478

LSlabel - A simple label printing utility. Very powerful as the user can/must do a lot of settings by himself. Features include variable linefeeds (in 1/216 inch steps), a very exactly setting of the label length and freely configurable printer codes. ***v1.0, binary only.***

MEDSongs - A selection of musical pieces created with MED, the musical editor program (see disk 476 for MED 3.00). Includes MEDPlayer v3.0.

MP - For sending any MIDI data back and forth between an Amiga and a MIDI instrument. Helpful for learning about MIDI, writing/debugging MIDI software, figuring out your instrument's system-exclusive implementa- tion, and more. ***v1.0, in-***

DeafLab - Translates text into hand signs for the deaf. Can be used to directly communicate with a deaf person that has trouble reading text, or used as a teaching tool for learning handsigning. ***v1.7, shareware, binary only.***

InputLock - Input handler to help Amiga users who have cats other pets (or children) that mess with the Amiga as soon as it is left for a second. It installs an input handler which lets you lock the keyboard and mouse by pressing a few buttons. Very small, uses only 190 bytes of memory. ***v1.1, an update to v1.0 on disk 483. Includes source in assembler.***

PicSaver - Allows you to cut rectangular portions of any screen and store them on disk as IFF ILBM files. Also allows easy saving of windows and entire screens to disk. ***v1.1, an update to v1.0 on disk 483. Includes source in assembler.***

PWKeys - Input handler that allows you to manipulate windows and screens by pressing keys on the keyboard. It currently lets you perform 25 different functions. Features include mouse blanking, screen blanking, mouse acceleration, 'sun mouse', mouse/keyboard locking, and an interactive program to define hotkeys and other settings. ***v2.0, an update to v1.0 on disk 483. Includes source in assembler.***

StackWatch - Monitors the stack of any selected task or process 30 times per second and reports the allocated stack, maximum stack used, and current stack used. ***v1.0, binary only.***

vScreen - Have screens that are larger than the actual display area of your monitor. These larger 'virtual screens' scroll when you move the mouse off the edge of the visible section of the screen. Currently does not work under AmigaDOS 2.0. Includes source.

DISK 495

AnalytiCalc - The AnalytiCalc spreadsheet, directly executable. This features operation with only one window, many '3 dimensional' sheet addressing primitives, and optional execution from icons. Two images are furnished, one for smaller and one for large internal storage (though both have software virtual memory if needed). These images operate OK under AmigaDOS 1.2, 1.3, and 2.0. They include code allowing the spreadsheet to be treated as a series of 'pages' so that a cell has a row, column, and (optionally) page, and ranges can be in depthtong pages as well as along rows or columns. The mapping is flexible enough so that it can be used to facilitate computing traces of matrices if desired, as well as for more conventional use. VV25-03B, an update to vV24-01a on disk 328. Includes source.

DISK 496

AvailMem - A small free memory counter that continuously displays the amount of (and size of the largest block of) free chip, fast, and total memory in bytes (as opposed to K). ***v1.12, a WB 2.0-compatible upgrade to v1.03 on disk 285. Includes source.***

DU - WB 2.0 aware DU program. Unlike other Amiga DU programs, it will skip over links to files and links to directories. Not only does this give a more accurate representation of how much space the contents of a particular directory are taking up, it also prevents infinite loops when a directory has a link to one of it's ancestors. ***v1.02, includes source.***

GodsDemo - Demo of a popular European game.

MemMometer - Opens a narrow window and graphically both displays your memory usage like a gauge, and also detects changes in regions of memory over time. Detected changes are catagorised and displayed using color coded bands. ***v2.20, an update to v2.10 on disk 350.*** It accomodates AmigaDOS 2.0 and the Amiga 3000 32-bit memory addresses. Includes source.

Ruler - Ruler is a small tool used in the measurement and constrainment of text. Originally conceived as a tool for insuring that filenames didn't exceed the Amiga's 30 character limit, it is nevertheless useful in any situation when the number of characters in a line of text needs to be counted. ***v5.00, includes source.***

DISK 497

AutoActivate - Activates the window under the mousepointer when pressing any key. Requires AmigaDOS 2.0. ***v1.08. Includes source in C.***

Back&Front - Sends a window to back or brings it to front with defined actions. For example put a window in front by double- clicking in it and send it back with the middle mouse button. Any keyboard or mouse event can be trapped. Number of required actions can be changed (double-click vs triple-click). Implemented as a commodity. Requires AmigaDOS 2.0. ***v1.03. Includes source.***

CenterScreen - Centers the frontmost screen horizontally on hotkey. Useful if you normally operate with overscan screens and an old program opens a normal size screen. Requires AmigaDOS 2.0. ***v1.05. Includes source in C.***

ChangeColors - Palette tool to change colors of WB or any other public screen. The feature of this tool is its font independance; it uses the font of the screen on which it opens, instead of insisting on topaz 8. Looks really great if you use any other font than topaz on your WB screen. ***v1.03. Binary only.***

LeftyMouse - Swaps the left and right mousebutton for lefties. Commodity. Requires AmigaDOS 2.0. ***v1.04. Includes source in C.***

MouseAccel - Mouse accelerator, this one implemented as a commodity. If you find the built-in accelerator too slow, try this one. Requires AmigaDOS 2.0. ***v1.01. Includes source in C.***

MouseBlanker - Blanks the mouse pointer after a defined timeout or if you press any key. Commodity. Requires AmigaDOS 2.0. ***v1.13. Includes source in C.***

NewShellCX - An 'open shell on hotkey' commodity (like PopCLI). Requires AmigaDOS 2.0. ***v1.05. Includes source in C.***

NLCalc - Calculator that uses the NL 3D look (see NLDaemon on this disk). Opens on any screen at the touch of a function key. ***v3.1.2, includes source.***

NLDaemon - Implements a 'New Look' in Amiga programs, by using 3D-like gadgets. Converts standard intuition window gadgets into 3D versions. ***v1.4.3, includes source.***

Reboot - Reboots your Amiga by calling exec's Cold- Reboot() function. ***v1.02. Includes source in C.***

Request - Opens the DOS 2.0 autorequester from script files. Title, text, gadgets and publicscreen of the requester can be changed by command line options. ***v1.00. Includes source in C.***

WindowShuffle - Activates and brings to front next or previous window with hotkeys. Hotkeys can be changed. Implemented as a commodity. Requires AmigaDOS 2.0. ***v1.05. Includes source in C.***

DISK 498

CPalette - Palette adjusting program that can be brought up on just about any screen, including HAM and EHB. V1.1, includes source in assembly.

FreeCopy - Unlike most copiers in that it does not actually copy disks. It removes the protection so disks can easily be backed up with almost any program, and in some cases be installed on your hard drive. ***v1.4, binary only.***

Pauky - Demo of an English to German (and vice versa) word translation trainer. ***v1.2, binary only.***

TapeCover - Prints out those little paper inserts for casette tape cases. It lets you enter the name of the songs, and the title of each side. It should work on any printer that can print in that semi-condensed mode. ***v1.0, includes source in C.***

WordSearch - Automated wordsearch generator. Words orientations can be limited to any subset of the eight primary directions and the puzzle can be rotated or flipped. It has a spartan but functional user interface highlighted by the req.library. The system default font under WB 2.0 is supported for the puzzle display window. ***v1.0, includes source in C.***

YatZ - 1 player Yatzee game. ***v1.0, includes source in C.***

ZoomDaemon - Adds a 'zoom' gadget to every window that can be resized. Pressing this gadget makes the window as large as possible or as small as possible, or brings it back to its normal size. ***v2.1.3, include source.***

DISK 499

Diglib - Amiga device independent graphics library for fortran applications. Enhanced and debugged version of a public domain library. This library is required for part of the Matlab package, also included on this disk. ***Update to disk 267. Includes source in FORTRAN.***

Matlab - A FORTRAN package (MATrix LABoratory) by Argonne National Laboratories. Provides comprehensive vector and tensor operations in a package which may be programmed either through a macro language or through execution of script files. Supported functions include sin, cos, tan, arcfunctions, upper triangular, lower triangular, determinants, matrix multiplication, identity, hilbert matrices, eigenvalues, eigenvectors, matrix roots, matrix products, inversion, and more. Amiga specific features include WB startup, polar plots, contour plots, enhanced plot buffer control, and algorithmic plot display generation. ***Update to disk 267,*** with many bug fixes and code reorganisations. Includes source in FORTRAN.

DISK 500

Signal - 2 programs designed to make it easy to write shell scripts that must be synchronised with the operation of another, in order to avoid disk thrashing for example. Includes source.

sWindows - Use the title of a window to specify the screen on which the window will appear. This provides a method of opening CON: and RAW: windows on screens other than the WB, for example. Includes source.

wIconify - Program, and number of companion utilities, that allow you to iconify windows on any screen, including custom screens. Iconified windows become small icons on the bottom of the screen, and they can be opened again by double-clicking them. Also allows any screen to become a shared, WB-like screen, and gives you the ability to create new screens specifically for this purpose. Each window can have its own custom icon. There is a programmers interface to allow programs to control their own icons. ***v3.8, includes source.***

DISK 501

AddMenu - Add infinite number of menus to the Tools menu on WB V2.0. Uses the correct WB.library calls and allows updating from CLI or from within the menu itself, meaning infinite number of functions. Binary only. Source available.

AutoCLI - A 'PopCLI' type replacement that works with WB 2.0 and fully compatible with A3000 & accelerator boards. Always retains the default path and stack, and current directory. Can automatically open CLI/SHELL windows to 1 pixel less than screen size on opening. Other features include an optional Function-key press with the qualifier to execute an S:script file. V1.99d, binary only. Update to disk 424 with more enhancements.

Dominos - Game of dominos with 6-6 set. The computer will provide quite a challenge to any skilled player. ***v1.0, includes source in BASIC.***

DOSWatch - Monitor for calls to AmigaDOS via dos.library. Needs Kickstart 1.2 or 1.3. ***v1.0.*** HiSoft Devpac Assembler V1.21 source included.

Genesis - Flexible and powerful program for generating and rendering fractal landscapes. Original algorithms allow incorporating fractal rivers as integral parts of the landscapes, with natural looking river valleys, gulleys, waterfalls, and lakes. A number of parameters can be varied to modify the landscape construction process and change the character of the final landscape, there is also great flexibility in the rendering. This is a demo of the commercial product by the same name available from Microillusions - some features disabled. Binary only.

LList - A 'list' type program that displays type of file. Many types of files included, and ability to extract information from other file types for recognition. Standard Amiga Wildcards supported. Binary only.

NewList - Powerful LIST replacement. Supports many features including sorts, character filters, case sensitivity, most options offered by LIST, date construction, UNIX wildcards, and much more. Sort routines are very fast and memory usage is minimal. ***v5.0, an update to v4.9 on disk 478. Binary only.***

NoClick - Stops drives clicking in KickStart V2.0. Uses the correct method. Also included is a patch for the kickstart files for a permanent no-click for V1.3 and V2.0. Binary only and ASCII patch.

NoErrors - Simple to use, Gadget driven program. Its main function is to hide physical hard errors from floppy disks or hard disks. Binary only.

DISK 502

AutoRev - Update program-headers run from the CLI. Requires AmigaDOS 2.0. ***v1.1r. Source included.***

CELLS - Cellular automata experimentation lab, based on the rules described in the Computer Recreations column of the Scientific American, January 1990. ***v1.3. Source included.***

EternalRome - Historical strategy game, that in spite of its high complexity is fast and easy to play. Fully mouse controlled with a fine zoomable map of the Roman empire (overscan and interlaced options). The simulation delivers many historical insights because of its accuracy (may be used for educational purposes) and is a challenging and entertaining game for two or more players (also interesting for solitary studies). ***v1.0 (tryware). Binary only.***

ReturnCode - 2 Short programs (LogRC and GetRC) to allow the 'Return Code' left by a previous program to be saved in a form suitable for further (script) testing. GetRC allows the Return Code to be set or viewed as desired. Assembly source included.

SysInfo - Reports interesting information about the configuration of your machine, including some speed comparisons with other configurations, versions of the DOS software, etc. ***v2.22, an update to v1.98 on disk 433. Binary only.***

TrackDOS - Transfer of data between DOS, memory and trackdisk.device. DOS means the data contained within a file, memory means the data contained anywhere within the memory map and trackdisk.device means data stored on a disk not accessable with DOS (eg. bootblocks special loader disks etc.). The transfer of data between these three areas is not normally easy or convenient. TrackDos was written to overcome this. ***v1.08, an update to 1.04 on disk 365. Binary only.***

DISK 503

NoFragLib - A library containing 6 routines for defragmenting memory. Extracted and updated from the 'tool.library' on disk 475. Includes source.

PCQ - A freely redistributable, self compiling, Pascal compiler. ***v1.2a, an update to v1.1c on disk 339.*** It has many enhancements and improvments. It is bundled with the latest versions of A68K assembler, Blink linker, Debug, and Mon to give a complete development environment. Includes the compiler source and example programs.

DISK 504

PolySiliCon - Centralised Shell Command Interface with visible scrollable History and mouse access. Allows multiple shells to be controlled from a single command/history window. Commands can be re-executed with a mouse click. A group of commands for a project may be loaded into the history from a file for easy access. Compatible with both 1.3 and 2.0 AmigaDOS. ShareWare, binary only.

RoadRoute - Determines from a user modifiable data base, the shortest and fastest routes between two cities. Includes a coarse and a detailed data set and a program, RoadScan, for examining the contents of large RoadRoute data files. ***v1.7. Includes source.***

ShuttleCock - Animation from Eric Schwartz. Eric wanted to see if he could still do an animation that required less than 1 MB to run. Released May 1991.

View - Text displayer with many controls and features including searches, file requestors, jump to editor etc. ***v1.0, a re-write that requires AmigaDOS 2.0. Source is included.***

ViewDir - Read the current directory by commanding VIEWDIR "". Displays a listing of the specified directory with the total bytes at the bottom and the description of the file types next to each file. Also includes a 'vstring' to allow a DOS 2.0 Vcommand to read. ***v2.1 an update to disk 358. Assembler source included.***

DISK 505

TheDatingGame - Animation by Eric Schwartz. Lasts nearly 4 minutes and requires 3 MB of RAM to run. Flip the Frog has all kinds of trouble getting to the house of his girlfriend, Clarisse Cat. This cartoon animation follows the style of the short theatrical cartoons of earlier days. Shareware.

DISK 506

NGTC - Release 2 of a trivia game based on 'Star Trek: The Next Generation' TV series. Part 1 is on this disk. Part 2 is on disk 507. You also need Release One from disks 404 and 405. Created with 'The Director' v2. Binary only.

DISK 507

LHCon - Converts Arc and Zoo formatted archives to LHArc format. This will save precious disk space. LHCon will do single files or entire directories. It also has the capability to preserve the comment field of the file for BBS programs that require it and for the individuals who label their programs in that manner. ***v1.01. Binary only.***

NGTC - Release Two of a trivia game based on 'Star Trek: The Next Generation' TV series. Part 2 is on this disk. Part 1 is on disk 506. You also need Release One from disks 404 and 405. Created with 'The Director' v2. Binary only.

DISK 508

DirWork - Directory utility that gets directories off floppies in about half the normal time. Configurable. ***v1.30, an update to v1.12 on disk 406. Shareware. Binary only.***

HCC - Amiga port of Sozobon, Limited's C Compiler, v2.0. Can completely compile itself, supports 32 bit ints, and optimiser can 'registerise' variables. Includes compiler, optimiser, tool for creating interface code for Amiga system calls, startup code, C library, include files, and library routines that work with Motorola FFP format. Uses assembler A68k, linker BLink, and provided runtime shared C library CClib.library. Includes source.

DISK 509

Multi_Player - A music player that loads and plays a large variety of the "tracker" type sound modules. With an intuition interface, allows you to load formats like Intuitracker, NoisePlayer, Soundtracker, FutureComposer and 7 others including power- packed modules! Includes many sample modules in several of these formats. ***v1.2. Includes source.***

PCKeyMap - This program uses an Input Event Handler to manipulate the backslash () and some other useful keys in order to better emulate an XT/AT keyboard on the German Amiga keyboard (which is missing the backslash and some other keys). ***v1.0. Includes source.***

DISK 510

ATCopy - Copies files from the Amiga side of a system equipped with a PC/AT bridgeboard, to the PC side, using wildcards. Copies directly through the shared memory. Supports CLI and WB usage. ***v2.22, an update to v2.2 on disk 458.*** With some final bug fixes, this will be the last non-commercial release. Shareware, binary only.

SYNWORKS - A graphics oriented environment for design, training and test of neural networks. The enclosed vis public domain and supports only three network models. Not all options are available but this vprovides the most important features to allow users to decide if neural networks are an appropriate solution for their problems. Binary only.

VMK - Virus detector, this program no longer detects specific viri, instead it concentrates on checking system vectors and various parameters that viri typically modify in order to survive reboots. ***v1.0, an update to v.27 on disk 328*** listed under 'Hames'. Binary only.

DISK 511

Connex - A "connect-4" type game. ***v4.0, an update to v3.8 on disk 493. Shareware, binary only.***

DirWork - Directory utility that gets directories off floppies in about half the normal time. Configurable options and buttons, as well as all the usual features. ***v1.31, an update to v1.30 on disk 508. Shareware. Binary only.***

Less - Text file reader, descended from Unix 'Less'. Less has features found on no other Amiga file reader; it can use pipes, accepts multiple filenames, and has many convenient positioning commands for forward and backward movement, marking positions, etc. Runs on all Amigas, under any screen resolution and font, and uses the full 8-bit character set. Other improvements include seaches using regular expressions, multiple file selection from WB, and resident operation. ***v1.4Z, an update to v1.3 on disk 149. Includes source.***

OneKey - A 1.3/2.0 compatible input handler for people who can only press (or cause to be pressed) one keyboard key at a time. OneKey gathers individually pressed qualifier keys (shift, alt, control, etc) and then applies them to the next non-qualifier key that is pressed. ***v36.11, includes source.***

PCQ - An update to PCQ from disk 503. This is only a partial distribution and includes just the compiler main pass, the documentation, and a ReadMe file. You need the distribution from disk 503 to use this material. ***v1.2b.***

Solitaire - A shareware solitaire game, known widely as Klondike. The rules can be varied, and there are five different ways of working through the deck. Also includes a palette requester to fine tune the colors to your liking and a save-setup function that remembers how all the options are set. ***v1.8, binary only.***

DISK 512

Csh - Replacement shell, similar to UN*X csh. Main features include over 100 built in commands, 70 functions, new system variables, file name completion, freely programmable command line editing, file classes, auto cd, lazy cd, intuition menus for the shell window, automatic RX-ing, local variables, $(), statement blocks, high speed, plus much more. ***v5.15, an update to v4.02 on disk 458. Includes source.***

Flipit - Possibly the strongest Reversi/Othello type game available. Shareware, binary only.

M2Pascal - A simple Modula-2 to Pascal translator. You can write simple programs on your Amiga using one of the available Modula-2 compilers, and then use this translator to generate Pascal source for export to other systems with Pascal compilers. ***v1.0, includes source in Modula-2.***

Solitaire - Solitaire game. Shareware.

DISK 513

DKBTrace - Raytrace program that takes a text description of a 3D scene and renders it to a 24-bit file which may be converted to HAM or viewed on an 24-bit card. The program features sophisticated textures, constructive solid geometry, and various graphics primitives such as quadrics (cones, cylinders, etc.), spheres, planes, triangles, smooth triangles, and quartics (donuts, etc.) Also included are many sample data files and many utilities for creating new data files and for post-processing the output files. Source and executables are included. Because of its size, the distribution has been split onto two disks. Disk 513 contains the raytracer and disk 514 contains the utilities. ***v2.12, an update to v2.0 on disk 397.***

NewList - A powerful LIST command. Supports many features including sorts, character filters, case sensitivity, most options offered by LIST, date construction, UNIX wildcards, and much more. Sort routines are very fast and memory usage is minimal. ***v5.0a, an update to v5.0 on disk 501.*** New features include recursion, hunt mode, custom formatting, multiple paths, paging, and much much more. Binary only.

DISK 514

DKBTrace - Raytrace program that takes a text description of a 3D scene and renders it to a 24-bit file which may be converted to HAM or viewed on an 24-bit card. The program features sophisticated textures, constructive solid geometry, and various graphics primitives such as quadrics (cones, cylinders, etc.), spheres, planes, triangles, smooth triangles, and quartics (donuts, etc.) Also included are many sample data files and many utilities for creating new data files and for post-processing the output files. Source and executables are included. Because of its size, the distribution has been split onto two disks. Disk 513 contains the raytracer and disk 514 contains the utilities. ***v2.12, an update to v2.0 on disk 397.***

GearCalc - A bicycle gear ratio calculator. ***v2.0, binary only.***

S220to8SVX - Converts sound samples from a Roland S-220/S-10/MKS-100 to 8SVX IFF 8-bit samples. ***v1.4, an update to v1.0 on disk 286.*** New features include volume adjust and start / end point setting. Includes source in assembler.

TLog - An intuition based program that records statistics to monitor athletic training progress. Maintains a daily record of distance, time, heart rate, weight and temperature. Links a text file with the record for a free form diary. The AREXX commands provide the basis for generating custom reports from the data base. Sample script allows TLog to automatically get to a scheduler to post reminders of upcoming events. ***v1.0, shareware binary only.***

DISK 515

CheckBook - Checkbook Accountant is a checkbook recording, balancing, budgeting, and analysing program. Intended to be used as a companion to a checkbook register and not as a replacement, this program offers a simple way of balancing checkbooks, tracking bank transactions, and recording and analysing budgeted transactions. ***v2.0, an update to v0.9 on disk 425.*** Some of the new features include: Sort, Move, Duplicate, Program Prefs, Reoccurring Transaction Groups, Statistics, and Search & Replace. AmigaDOS 1.3 or Release 2 required. Binary only.

D110EdDemo - Demo of an editor for Roland D-110. Bulk dump is available. Edited parameters are not submitted to Roland D-110.

PP - Powerpacker patcher is a small tool that patches the DOS library so that PowerPacker datafiles will start acting as if they were 'normal' files. Sample use of PP would be to crunch all your .info files. They will still retain their functionality as long as PP is installed, and WB will never know the difference. Icons are useful, but take up a lot of valuable disk space. You may also use any text viewer or editor you desire directly on Powerpacker files! ***v1.0, shareware, includes source.***

CCOPTS - Lets you easily deal with the MANX 'CCOPTS' environment variable. You can store settings to disk. Has a complete intuition interface. ***v1.00, binary only.***

DISK 516

Enigma - An interactive animation object that can be viewed as a puzzle or a game object. The Enigma! Machine can be programed by the user to generate text. Part of the challenge is to discover how to program it to generate meaningful output. ***v1.00, binary only.***

Loom - Simulation of an eight harness loom. Supports 15 colors for warp and weft threads. Scalable display. Patterns created can be printed in draft format or saved as IFF files. ***v1.00, binary only.***

PhoneGram - Generates text from phone numbers. Attempts to find all three and four letter words encoded by any phone number. Graphic keypad display with sound. ***v1.01, binary only.***

Quotes - Quotes is a pseudo-random quote generator. It will scan a specified file of quotes, pick one at random, and display it. Great for startup-sequences. CLI-only. ***v1.0, includes source.***

RexxView - Monitors messages sent to the REXX port. Messages are described by task, action code and modifiers, and the contents of arg0 slot is displayed. CLI utility to monitor the REXX IPC hub for Arexx programmers and interfacers. ***v1.01, includes JForth source.***

XI - Demo of a single bit-plane cel animation generator. Uses an onion-skin display to rough in an animation sequence. Has a large ARexx command set, multiple precision bezier curves and splines, scalable and rotatable polygons, brush support with blitter logic, turtle graphics and macro key definitions. Requires req.library (Fox/Dawson). Non-saving demo version, binary only.

DISK 517

Aequipot - Renders multicolor pictures using an algorithm based on electrostatic effects. Renders in low-res, in highres, and in two speed/quality modes. Includes both PAL and NTSC versions, English and German docs. ***v1.15, an update to v1.06 on disk 474.*** Now supports saving pictures in IFF-ILBM format and animation rendering via script files. Freeware, includes source in PCQ.

AmiBack - Demo of a new backup utility. Features include backup to any AmigaDOS compatible device (such as floppies, removable hard disks, fixed media hard disk, and tape drives), no copy protection, configuration files, complete backups, incremental backups, selective backups, file exclusion filter, setting of archive bit, etc. Demo vdoes not have restore, compare, or scheduler. ***v1.04, an update to v1.03 on disk 493. Binary only.***

CWToy - Like Say or SpeechToy that allows your Amiga to communicate in International Morse Code. A lot of nice features for code practice or with a simple hardware interface even useful as a keyboard program for your transmitter. ***v1.0, includes source in C.***

Hex - A file-based binary file editor with lots of features. ***v1.0, shareware, binary only.***

RussianFonts - Russian Fonts ranging from 13 points to 31 points.

Spliner - A spline screen blanker commodity, derived from the spline code extracted from Tom Rokicki's Mackie and encapsulated into a standard AmigaDOS 2.0 commodity. Binary only.

DISK 518

AmiDock - Version of the NeXT's Dock facility. It will open up a small window on your WB full of little IFF brushes. Each brush represents an application, like an ICON, but it's a brush. Click on the brush and your application will start. ***v1.3, an update to v1.2.4 on disk 474. Shareware, binary only.***

Lister - Program to display information about files in various types of archives, such as arc, cpio, lharc, tar, zip, and zoo. ***v1.0, includes source.***

Post - An excellent PostScript interpreter which implements the full Adobe language. Supports type 1 and type 3 fonts, screen output, file output, and printer output. Requires Arp library V39+ and ConMan V1.3+. ***v1.6, an update to v1.5 on disk 468. Includes source in C.***

DISK 519

AVLSort - A text file sort program, based on a general purpose AVL package by Mark Mallett (included). Handles as many lines as will fit in memory. Includes source.

ChkFrag - Reports on the extent of file fragmentation in any specified directory tree. Binary only.

FifoLib - FIFO: is like PIPE: but is based on fifo.library rather than its own implementation. Fifo.library is a general fifo library implementation that supports named fifos, writing to a fifo from a hardware exception, multiple readers on a fifo with each getting the same data stream, efficient reading, and automatic or manual flow control. Programs that require non-blocking IO can access one side of a FIFO: connection via the fifo.library instead of the FIFO: device. ***v3.1, an update to v2 on disk 448. Includes some source.***

OakLisp - A straight port of the OAKLISP system to the Amiga. OAKLISP is a Scheme-like LISP with an object-oriented base. An R3RS Scheme environment is included in the package. Because of its size, the distribution is made on two disks, 519 and 520. Both disks are required. Source is included.

Optimizer - A disk optimiser that works on floppy disks, hard disks, and ram disks. It is designed to provide safe optimisation, moving only one block at a time. ***v1.0, freeware, binary only.***

DISK 520

IOBoard - Full plans for a public domain hardware project which adds two parallel ports and two serial ports to an Amiga 500, 1000, or 2000, for less than $100, with the capability to upgrade to four ports of each type at any time. Includes serial and parallel drivers with source code. ***v2.10.***

OakLisp - A straight port of the OAKLISP system to the Amiga. OAKLISP is a Scheme-like LISP with an object-oriented base. An R3RS Scheme environment is included in the package. Because of its size, the distribution is made on two disks, 519 and 520. Both disks are required. Source is included.

DISK 521

A68k - A 68000 assembler originally written in Modula-2 in 1985 and converted to C by Charlie Gibb in 1987. Has been converted to accept metacomco-compatible assembler source code and to generate Amiga objects. ***v2.71, an update to v2.61 on disk 314. Include source.***

BatchMaster - Makes creation of interactive command scripts a lot easier. It works as commands ASK, IF and SKIP together, only better. You can have up to four options to skip to, and select them with a mouse, as BatchMaster has an Intuition interface. ***v1.27. Requires arp.library. Binary only.***

CheckPrt - Checks the presence of a parallel printer from within a script file. ***Update of disk 479.*** Now also includes two small tools to test the state of some lines of the printer port, to make it easier to find the source of printer problems. Binary only.

K1 - Editor for the Kawai K1-II synthesiser. Includes a bankloader for single-patches and multi-patches, a single- patch editor, a multi-patch editor, and support for the effect-session and K1 controllers. ***v5.1, an update to v4.8 on disk 481. Binary only.***

LandScape - CAD program to aid in designing garden layouts. First the plan is laid out, placing lawns, paths, plants, etc., and the program then draws a '3D' picture of what the garden might look like in real life, from any viewpoint. ***v1.0, binary only.***

SynthSong - A song created using the freely-distributable program MED v3.00. Although quite small (63k) on disk, this one expands in memory once loaded, lasting almost 65 minutes. Player program included.

T3E - Converts any text file to an executable. The resulting program will only have a minimum of bytes appended (94 bytes for hunk structure and display-program). The text file is not limited by the size. Freeware, with source in C.

DISK 522

MAK - Mandelbrot Adventure Kit - Mandelbrot generator with full 'C' source code.

DISK 523

BMake - GNU Make subset. Includes pattern rules, conditionals, "include", function calls, etc. ***v1.4, with source.***

Conquest - Lore of Conquest is a war game similar in concept to the board game Risk. ***v1.5, an update to v1.3 on disk 459. Binary only, shareware.***

PSGraph - Graphing program with plot previews and encapsulated postscript output. ***v1.0, binary only.***

ScreenJaeger - Screen capture program that works by scanning through memory, allowing you to grab screens from programs that don't multitask, and save them as IFF files. Features include an Intuition interface, multiple bitplanes, support of all Amiga display modes and resolutions, CHIP and FAST memory, overscan, and both NTSC and PAL. ***v1.0, includes full C source.***

SerLib - Shared library providing easy access to any serial device. Allows both synchronous and asynchronous access to the port. With support code for Lattice, Manx and Oberon. Includes examples in both C and Oberon (with source) and docs in ASCII, DVI, and PostScript. Shareware.

DISK 524

Kamin - Various interpreters from the book 'Programming Languages, An Interpreter-Based Approach', by Samuel N. Kamin. This distribution includes lisp, apl, scheme, sasl, clu, prolog, and smalltalk interpreters, automatically translated from Pascal to C using p2c. Includes C and Pascal source.

Snap - Tool for clipping text or graphics from the screen, using the clipboard device. Snap finds out character coordinates automatically, handles different fonts, keymaps, accented characters and more. ***v1.62, an update to v1.4 on disk 326. Includes source.***

TAPDemo - Tumble Axis Processor is a 'Sculpt' utility with several functions, including automatically aligning a path's tumble axes so that an object following that path will always face the direction of travel, and production of an easy to read data list containing the location of each node and the orientation of each of its tumble axes. Fully functional except that it will not function on paths with more than 15 nodes. Binary only.

DISK 525

CrcLists - Complete CRC check files for disks 401-520 using the brik program. These were made directly from my master disks. Along with the crc lists from disk 401, these lists will allow you to check all of the disks in the library to make sure they are correct and complete.

DumpHarpoon - Program that dumps the .DAT data files for the game HARPOON.

MinixDemo - Demo of Minix 1.5, an operating system very similar to UNIX. Full version of minix comes with source code for the kernel and most of the utilities. Binary only.

SIOD - Small scheme interpreter (Scheme In One Defun) which can be used for calculations or included as a command interpreter or extension/ macro language in other applications. ***v2.4. Includes source.***

DISK 526

DataEasy - Data base program - includes a phone dialer, speech output, a simple screen editor for making and modifying the database definitions, a screen print function, form letter printing, sorting, searching, and two small sample databases. ***v1.3, an update to v1.1 on disk 417. Binary only.***

GNUPlot - An interactive function and data plotting program which supports a great number of output devices. Includes extensive on-line help. v2.0, patch level 2. Includes full source along with diffs and patch program to generate Amiga version.

DISK 527

Arq - Replaces the standard system requesters with nice animated requesters which you can also attach different sounds to. Works under AmigaDOS 1.3 or 2.0 to give all the normal system requesters a nice new look. ***v1.61, binary only.***

Lister - Program to display information about files in various types of archives, such as arc, cpio, lharc, tar, zip, and zoo. ***v1.01, an update to v1.0 on disk 518. Includes source.***

MightyMouse - A very small screen blanker, mouse accelerator, mouse blanker, hot key, etc. ***v1.05, binary only.***

PicBase - Organise and manage all IFF images and brushes stored on disk. Displays a miniature monochrome (8 or 16 level) image of each file, with information such as: pathname, creation date, file size, image size and depth, display mode, and file note. The images are displayed four at a time and can be scrolled in realtime, manually or automatically sorted, presented as a slideshow, and more. ***v0.36, shareware, binary only.***

SRegExp - Runtime library of routines for doing wildcard pattern matching and wildcard path matching. It accepts a slight extension of the AmigaDOS wildcard syntax, including a 'not' operator and character sets. ***v11.1, includes source.***

ToolManager - Adds programs (either WB or CLI) to the tools menu of the 2.x WB. Requires WB 2.0. ***v1.4, an update to v1.3 on disk 476. Includes source.***

Zoo - File archiver, much like 'arc' in concept, but different in implementation and user interface details. ***2.10, an update to v2.00 on disk 164.*** Binary only.

DISK 528

AmiOmega - Port of the Omega game. Similar to Hack or Rogue. There is a city, several towns, a wilderness, lots of dungeons, a multitude of monsters, lots of spells, magic items, etc. There are several quests to complete. ***v1.5, a different port than v1.0 on disk 320. Binary only.***

CpuBlit - CpuBlit replaces the system BltBitMap routine with a vthat uses your 68020/68030 when it is worthwhile to do so. This results in text scrolling twice as fast as usual, and in addition, the color flicker effect normally present when scrolling multicolor text is removed. ***v1.0, includes source.***

FontConv - Converts MacIntosh Postscript type 1 and type 3 fonts to the IBM Postscript type 1 and type 3 format. Also converts MacIntosh bitmap screen fonts to the Adobe binary format (abf). ***v1.2, binary only.***

KeyMenu - Alternative to Intuition's method of menu selection via the keyboard. Uses one key to activate the menu for the currently active window, the cursor keys to move through the menu as you choose, and the return key to select the desired menu item or escape key to abort selection. Works with AmigaDOS 2.0 mouse accelerator and has option to blank Intuition's pointer. ***v1.05, an update to v1.03 on disk 470. Includes assembly source.***

SimSmart - Prints the program source code of almost any language, so that (for example) the keywords are emboldened and underlined, and the comments are italicised. These features are adjustable by the user, to suit individual taste. Tabbing also is adjustable, to harmonise with the nesting depth of a particular program. Output may be either on the printer, the screen, or to another file. SimSmart may easily be extended by the user to deal with extra languages. ***v2.10, shareware, binary only.***

DISK 529

ClockDJ - Combines a clock, mouse accelerator, screen blanker, window manipulator, function keys, and macros into a single program, written in assembly language for maximum efficiency. Includes an ARexx port. ***v5.02, an update to v4.07 on disk 293. Binary only.***

MonkeyDemo - Demo of the LucasFilm game 'The Secret of Monkey Island'. Installable on a hard disk and multitasks as well. Binary only.

TownMaze - Designs a town-shaped maze like the town 'Bard's Tale I' uses. ***v1.2, includes source.***

DISK 530

DeckBrowser - Player for unbound CanDo decks. ***v1.5, binary only.***

Dme - ***v1.45.*** Simple WYSIWYG text editor designed for programmers. Not a WYSIWYG word processor in the traditional sense. Features include arbitrary key mapping, fast scrolling, title-line statistics multiple windows, and ability to iconify windows. ***Update to v1.42 on disk 441, includes source.***

TurboTitle - For subtitling Japanese animation films and creating a standard Amiga subtitle format. ***v0.80, an update to v0.71 on disk 424. Shareware, binary only.***

DISK 531

CaligariDemo - Demo of Caligari 2.0. Requires a 68020/68030 and a 68881/68882. Binary only.

DisDF - Disables DF0-DF3 - stops empty drive clicking by putting trackdisk.device tasks in a removed state. ***v1.0, includes source.***

FileSearch - Searches an AmigaDOS volume for a specified file, using a filename pattern. Intuition interface. ***v1.5, binary only, WB2.0 only.***

Graffiti - Demo of art program, with a feature set somewhat less than DPaint but more than many other such programs. Has a few special functions included like autoscrolling, converting screens to other resolutions, changing RGB values of the whole screen, fast autoscrolling magnifier, etc. ***v1.01, binary only.***

Populous - KeysCode words and options descriptions for all 495 worlds of (game) Populous (TM Electronic Arts and Bullfrog Productions).

DISK 532

BootPic - Install nearly any IFF picture that you like in place of the WB hand that appears after a reset. ***v1.1, an update to v1.0 on disk 484.*** Intuition interface. Binary only.

DataPlot - Plots data and algebraic functions in 2D. User clicks on an option screen to select various options, such as type of marker, log or linear axis, auto vs manual scaling, grid lines. The macro language makes similar, repetitive plots easy to do. Data points can be transformed by an algebraic function prior to plotting. A macro can be automatically executed upon start-up. Plots in any resolution from 320x200 to 640x400. Plots can be saved as macro commands and IFF ILBM files. ***v2.1, a significant upgrade to v1.0 on disk 121. Shareware, binary only.***

SCSIMounter - Automated partition mounter especially suited for removable media SCSI drives. Automatically scans Rigid Disk Block of the drives and presents the user with a partition selector which allows the individual selection of the partitions to mount. Requires Kickstart 2.0. Binary only.

SCSIPrefs - Preferences editor for A3000. Allows you to change the bits that control some parameters of the embedded SCSI host adaptor. Requires Kickstart 2.0. Binary only.

TrainerMaker - Modify money, number of lives, or high scores of some games. The game to be modified must be capable of multitasking. ***v0.8, binary only.***

DISK 533

BootGen - Creates a boot-menu. Enter the name of ten programs and the program will do the rest. When you boot the disk a menu will appear where you can choose one of ten program names, which automatically will be loaded. ***v3.4, binary only.***

Conquest - 'Lore of Conquest' is a war game similar in concept to the board game Risk. ***v1.6, an update to v1.5 on disk 523.*** Includes enhanced galaxy map, instant replay option, timed turns, symmetrical universe, and more. Binary only, shareware.

Convert - Converts an object file to a C source which can be inserted with '#include' in your own programs. ***v1.0, includes source.***

DosManager - Copy, delete, move, view, show as pictures, play samples, rename, etc, files with this program. It is also possible to program a personal command with DosManager. ***v1.0, shareware, binary only.***

Icons - A bunch of 8-color icons for systems running AmigaDOS 2.0.

OctaMED - Demo Player program and sample songs for OctaMED, a special version of MED that can play 8 tracks at once on a standard Amiga without extra hardware. The sound quality is not as high as with 4-channel sound but is good enough for many purposes. Binary only.

VTest - Simple example how to test if the AMIGA is infected by a Virus. It simply checks some vectors in the Exec Base structure and some library routines like DoIO. ***v1.0, includes source.***

DISK 534

Term - Comms program written for AmigaDOS release 2.x (Kickstart 37.74 and WB 37.33 or higher required, Kickstart 37.175 and WB 37.52 recommended). Features include total configurability, full ARexx control, Xpr transfer support, filetype identification after download, cut & paste/point-and-click on screen, auto up and download, scrollable review buffer of unlimited size, solid and fully-featured VT100/VT220/ANSI emulation, optional fast atomic terminal emulation, hotkey support, powerful phonebook and dialing functions, ability to save and print the contents of the screen as IFF-ILBM or ASCII file, full overscan and screen resolution support (new ECS screen modes included), asynchronous operation and a lot more. Comes with six Xpr-transfer libraries (ascii, jmodem, kermit, quickb, xmodem & zmodem) and documentation. ***v1.8a*** and also includes the full 'C' and assembly source code.

DISK 535

Accent - Universal accented character converter for Amiga, IBM-PC, MacIntosh, and C64 files written in most West European languages (Danish, Finnish, French, German, Italian, Islandic, Norwegian, Spanish, Swedish, and more. Works with either ASCII or Word Perfect files. ***Major update to v1.5 on disk 454*** (where it was called Vortex). New features include a graphical user interface, simple file reader, and copy option. Binary only.

ArcL - Lists your ZOO, ARC and LZH Archives with automatic type detection. Includes german vand documentation. ***v1.0, binary only.***

BizCalc - A do-it-all user friendly loan calculator that calculates weekly and biweekly loans. Can generate amortisation tables to the screen, to the printer, or to a file. Uses menus, bottons, or keyboard commands, and iconifies. Has six decimal precision option and more. ***v1.2, an update to v1.1 on disk 493. Binary only.***

Flat - A filing system handler which implements block-mapped filing devices such as available under Unix. Read and write calls are mapped to low-level system IO operations which allow to treat devices such as df0:, dh0:, rad:, etc. as big data files. These 'virtual' files can be copied, read and written just like any standard AmigaDOS file. It is even possible to copy a whole disk with the CLI 'Copy' command or to archive disks with LhArc and the like. Written as a supplement for the Amiga 'tar' program. ***v1.3, includes source in 'C'.***

Format - A replacement for the WB 2.x 'Format' command with many additional features and a basic gadtools interface. Can be made resident and sports a number of additional command line options. Also included is a code fragment which will correctly initialise data media of any size (floppy disks or hard disk partitions) which works both under Kickstart 1.2/1.3 and 2.x. ***v1.1,*** includes source in 'C' and assembly language. AmigaDOS 2.x required.

FracBlank - A commodities screen blanker written for AmigaDOS release 2.x. When running will blank the screen and start to draw real plane fractals such as described in the September 1986 issue of Scientific American. The resulting images may remind you of spiders' webs, lace or even the Chladnian patterns formed by grains of sand strewn across a vibrating surface. ***v1.4,*** includes source in 'C' and assembly language. AmigaDOS 2.x required.

Icon - A tool which patches WB 2.x online to supply default icons for about 45 different file types ranging from LhArc archives to object code files. Enhances the 'Show All Files' option of WB which by default only knows two types of file icons: Tool and Project. If enabled scans all files in a directory which do not have an icon file supplied and tries to determine their file types. When done, tricks WB into believing that there are proper icons for these files in the directory. Includes source in 'C' and assembly language. AmigaDOS 2.x required.

KeyMacro - A keyboard macro program, configurable via a text file, that also supports hotkey program execution. You can map up to eight functions to each key, including keys such as cursor keys, the return key, etc. ***v1.12*** with a number bug fixes and enhancements, an update to v1.8 on disk 436. Includes source in 'C' and assembly language.

SetBatt - A tool to set the configuration information saved in the nonvolatile ram of the A3000 clock chip. Allows you to adjust the SCSI select timeout and other system settings. Includes source in 'C' and assembly language. AmigaDOS 2.x required.

TermLite - A tiny, almost brain dead telecommunications program written for AmigaDOS release 2.x. Can be made resident, supports cut & paste from console window, written as a simple interface to the serial/parallel device driver. ***v1.0, includes source in 'C'. AmigaDOS 2.x required.***

DISK 536

Chemesthetics - Draws molecules using the calotte model. This means that atoms are drawn as bowls. Intuition user interface, can save pictures as IFF files, and has many example files. ***v2.06, an update to v2.00 on disk 427. Includes source in C.***

Rev - A small program for a makefile or an Imkfile, to update revision numbers after each successful compile process. (Not related to but much more powerful than the increv program on disk 161 by Bryan Ford.) ***v1.03, includes source in C.***

PBlanker - An enhanced WB 2.0 commodity, replacing 'Blanker'. Can blank screen and mouse pointer separately. ***v37.04.*** Needs Kickstart 37.xx. Binary only.

WFile - Small but useful tool to interchange ASCII files between different operating systems. Converts foreign symbols and adapts linefeed codes. Can also be used to expand tabs to multiple spaces or vice versa. It has builtin templates for interchange between the Amiga, MS-DOS and UNIX. Profiles can be used for common adaptions. ***v1.11, includes source in C.***

DISK 537

AntiBorder - CLI window frame remover. Turns your CLI window into the largest possible borderless window that can be displayed on the WB screen. I.E. Creates a 80 x 32 character CLI window for standard PAL Amigas. ***v1.0, includes assembly source.***

BootGames - Two tiny games which fit on the bootblocks of a boot disk. BootOut is a Breakout style game and Squash is a squash type game (just like on those old TV games). BootOut V5.X and Squash ***v4.3. Includes assembly source.***

CHIP8 - Programming language popularised by the RCA COSMAC VIP, DREAM 6800, and ETI-660 hobby computers. It is one step up from machine code (actual hex codes), yet allows the creation of some very simple, very small games. ***v1.1, includes assembly source and some demo games.***

Cross - Creates crossword puzzles. Has a message data file to allow easy translation into almost any human language, with English and German currently supported. ***v4.1, an update to v3.3 on disk 464.*** Major new features are several new printer drivers including 'generic' and 'LaTeX', and many minor improvements. Includes source in M2Amiga Modula-2.

FO - Fast Optimiser is a new optimiser for AmigaDOS disks. It can optimise one disk in less than 2 min, 30 sec. FO supports WB or CLI modes and allows you to use unformatted disks as the destination. At least 1 Mb memory required. ***v1.0. Includes some source in C.***

PaulCopy - Single drive disk copier for Amigas with 1 Meg of RAM. Copies the source disk completely into memory in one go. Will also work with 512K Amigas, yet will require multiple disk swaps. VII, includes assembly source.

PBlanker - An ultra tiny Screen-Blanker / Mouse-Blanker / Mouse - Accelerator thingy. Is about 700 bytes and doesn't have to be RUN. ***v1.3, includes assembly source.***

SMUSMIDI - Converts SMUS Files output by Electronic Art's Deluxe Music Construction Set into standard MIDI files that can be read by modern sequencing software. ***v1.0, includes sample data***

files and source in C.

ZShell - Tiny (13Kb) CLI shell modelled along the lines of CSH, with over 40 internal commands. Some of its features include command line editing, history buffer, aliases, function key aliases, reverse polish calculator, multiple commands on one line, loops, If-Else-Endif constructs etc. ***v1.30 and includes assembly source.***

DISK 538

BCBMusic - Second set of original music in the BCBmusic series. This set includes the songs 'Still Waiting', 'Transpose', and 'Trilogy'. Like the first set (on disk 428), no player program is required since it is actually compiled in with the song. These new songs include a new equaliser-style graphic display which can be toggled on and off. WB2.0 compatible, binary only.

MatLabPatch - Patches for both Matlab and Diglib on disk 499. The version of Diglib compiled for 68000 machines has some incorrectly compiled modules (compiled for 68020) and therefore causes crashes on 68000 machines. The Plot.sub module compiled for 68000 machines in the Matlab archive was linked using the incorrect Diglib and does not run on 68000 machines. Provides correctly compiled replacements for both those files.

NGTC - Release Two, Revision 1, of a trivia game based on 'Star Trek: The Next Generation' TV series. This is a bug fix containing a new game module. You also need Release Two from disks 506 and 507, and Release One from disks 404 and 405. Created with The Director V2. Binary only.

DISK 539

DT - A 'DiskTest' utility for floppy disks, la Norton Utilities. ***v1.12, includes source (SAS-C).***

PF - A CLI/WB interface to control an Hewlett-Packard DeskJet 500 printer, enabling the user to select an internal font and to print one or more files, or to initialise the printer. ***v2.10, includes source (SAS-C).***

RPN - An emulation of an Hewlett-Packard pocket computer on your screen. ***v1.00, includes source (SAS-C).***

SimpleRexx - A set of routines that handle the low level ARexx work for you in such a way as to have your application work with or without ARexx on the target system. The goal is to make adding at least the minimum level of ARexx support to an application a trivial task. Includes source.

Uedit - A nice shareware editor with learn mode, a command language, menu customisation, hypertext, online help, a teach mode, split windows, copy and paste, undo, features. ***v2.6h, an update to v2.6e on disk 471. Binary only.***

VLTimer - A clock/timer window that sticks on the VLT screen (or on the WB if VLT is not running or opened on the WB) to check connection times (and costs). ***v1.02, includes source (SAS-C).***

DISK 540

Browser - A 'Programmer's Workbench'. Move, copy, rename, and delete files & directories from a CLI environment. Also provides a method to execute either WB or CLI programs by double-clicking them or by selecting them from a ParM like Menu with lots of arguments. A Browser 1.6 replacement, does everything Browser 1.6 does and a lot more. ***v1.0, includes source in C.***

CLIExe - An XIcon style program which uses parm.library. It allows you to execute a script starting from WB and is completely CLI compatible, because it is a CLI. Can use a real script file or take commands in its own TOOLTYPES. Includes source in C. ***v1.0.***

ParM - Parameterable Menu. Build menus to run whatever program you have on a disk. ParM can run programs either in WB or CLI mode. This is an alternative to MyMenu which can run only when WB is loaded. ParM can have it's own little window, can attach menus to the CLI window you are running it from, or to the WB menus, just like MyMenu. ***v3.00, an update to v2.5r on disk 419. Includes source in C.***

PatchReq - A patch for system requesters and arp file requester. Replace arp file requester with the great req.library file requester. Patches AutoRequest() for requesters to appear under the mouse and more. ***v1.4. Includes source in C.***

Req - Enhanced version of the interface to req.library for Aztec C 5.0. Pragmas supplied and glues put in a library rather than in an object file. Includes source in asm. ***v1.1.***

SANA - Release 2 of the Standard Amiga Network Architecture device driver specification. This is a specification for the device driver level only.

SetColors - Palette replacement program - 3k. Can save and load color files, and update preferences. Update to disk 419. Includes source in C.

WBRun - A 'RunBack' style program which use parm.library. Runs programs in WB mode from any CLI. Programs are fully detached. The program you run must support WB startup. Not related to WBRun on disk 43. Includes source in C.

DISK 541

4D - Two programs for visualising four - dimensional objects. The Tesseract program displays the three - dimensional projects of a hyper - cube (tesseract), a hyper-octahedron or a hyper - tetrahedron. These can be rotated in three and four dimensions. The 4D Navigator program moves you through the three - dimensional surface of a four - dimensional sphere. ***v1.01 for both. Binary only. Source available from author.***

GIFMachine - Converts CompuServe GIF image files into IFF SHAM and 24bit ILBMs. It offers a number of extra options like dithering, horizontal and vertical flip, as well as automatic border removal. Requires KickStart v2.0 or greater to run. ***v2.137, an update to v2.116 on disk 458. Includes source.***

Llamatron - A fast action, arcade style game, guaranteed to have your FILE button finger dangling off at the tendons. Hours of fun for you, blowing away horde after horde of alien fiends. Shareware, binary only.

MineClearer - Version of the Minesweeper game under Windows 3.0. You are the captain of a ship and you have to clear the sea from mines. Shareware. ***v1.0c, binary only.***

Steal - Grabs parts out of a display. It is used to grab parts from Intuition's structures, such as gadgets, menues, and screens. ***v1.1, includes source.***

Thinkamania - Playable demo of a game like the legendary memory game. Includes superb hires graphics and sound effects. ***v2.1, binary only.***

DISK 542

BootX - Virus killer. BootX can check the bootblock of a disk, check memory for any resident viruses, and scan a disk for link viruses. It can load bootblock libraries for you to write on your disks as an alternative for the boring DOS install bootblock. It can load brain files so you can add any new bootblocks that BootX does not yet recognise. BootX is written completely in assembly for maximum speed and minimum size. Fully supports AmigaDOS 2.0. ***v3.80d, an update to v3.40 on disk 420. Binary only.***

ChemniMaTe - Makes animations of chemical reactions with the purpose of recording it on a video tape. It is a programming language, containing expressions, nested loops, etc. It can handle molecules with in total up to 64 atoms, and lines between atoms. Works correctly under PAL. ***v0.8, examples and source (in DICE C) included.***

PowerSnap - Use the mouse to mark characters anywhere on the screen, and then paste them somewhere else, such as in another CLI or in a string gadget. Checks what font is used in the window you snap from and will look for the position of the characters automatically. Recognises all non proportional fonts of up to 24 pixels wide and of any height. Works with AmigaDOS 2.0 in both shell and WB environments. ***v1.1, an update to v1.0 on disk 467. Binary only.***

PP Powerpacker - Patcher is a small tool that patches the DOS library so that PowerPacker datafiles will start acting as if they were 'normal' files. Sample use of PP would be to crunch all '.info' files. The icons will retain their functionality as long as PP is installed, and WB will never know the difference. Icons are useful, but take up a lot of valuable disk space. You may also use any text viewer, editor or IFF tool (or anything!) you desire directly on Powerpacker files! ***v1.3, an update to v1.0 on disk 515. Shareware, includes full source.***

PPAnim - An anim player for normal IFF ANIM opt 5 (DPaint III,...) files or ANIM files crunched with PowerPacker. The decrunching is done automatically as the file is read. Features many command line options, palette change during animation, full overscan PAL/NTSC support and yet it is only 7K. Compatible with AmigaDOS 2.0. Some new 2.0 features (Asl requester) supported. ***v1.0a, an update to v1.0 on disk 414. Binary only.***

PPLoadSeg - This program patches the loadseg routine to automatically recognise files crunched with PowerPacker. After running PPLoadSeg crunched libraries and devices are still recognised by AmigaDOS. You can even crunch fonts and use them as normally. ***v1.0, binary only.***

PPMore - A 'More' replacement program that reads normal ascii text files as well as files crunched with PowerPacker. The crunched files can result in considerable disk space savings. ***v1.8, an update to v1.7 on disk 371.*** Enhancements include a WB 2.0 3D look under 1.3 and support for the Asl requester under 2.0. Binary only.

PPShow - A 'Show' program for normal IFF ILBM files or ILBM files crunched with PowerPacker. The decrunching is done automatically as the file is read. ***v1.2a, update to v1.2 on disk 371, binary only.***

PPType - A 'Print' program that will print normal ASCII files or files crunched with PowerPacker. Several nice features such as page headers and numbers, adjustable tab sizes, page info taken from preferences and more. ***v1.1a, update to v1.1 on disk 371, binary only.***

RemapInfo - An icon color remapping tool that swaps the colors black and white. The program runs on 1.3, but when run on 2.0 it supports the AppIcon feature. Drag all icons you wish to remap on RemapInfo's AppIcon to recolor them. ***v1.0, binary only.***

Selector - Helps you assemble programs on a boot disk and start them in a user friendly way by putting up a window with gadgets to launch programs. ***v3.0, update to v2.5 on disk 302. Binary only.***

TheGuru - Puts the guru back in Kickstart 2.0. A comeback you will not want to miss. New features include support for virtual and public screens, editing of phonemes and a full gadtools interface. ***v2.0, an update to v1.0 on disk 378. Requires AmigaDOS 2.0. Binary only.***

VCLI - Voice Command Line Interface (VCLI) is an Amiga voice recognition program that learns and recognises a set of voice commands. Each voice command is associated with an Amiga CLI command that is executed when an incoming voice command is recognised. VCLI allows the execution of any Amiga CLI command by voice. Requires the Perfect Sound 3 audio digitiser. ***v2.0*** of VCLI which offers improved performance, improved operability, and improved graphics for voiceprint display. Binary only.

DISK 543

AudioScope - AudioScope is a realtime audio spectrum analyser. Use AudioScope to examine the frequency spectrum of any audio signal received through the PerfectSound 3 audio digitiser. Due to the heavy computational load, an accelerated Amiga is recommended. Binary only.

Badger - Reminder program for your startup-sequence. Badger will open a window and display any important events that are 'due'. Badger will not bother you if there is nothing to report. Events are entered via menu and prompts. ***v2.05a, an update to v2.01e on disk 432.*** Includes many new features such as event editing and automatic holiday notification. Shareware, binary only.

ColorCatch - Grab colors from a screen and save them as an executable file. ***v2.0, an update to v1.0 on disk 396. Includes source in assembler.***

Day2Day - A small program which can calculate the number of days between two dates. Very useful, if for example, you want to know how many days you have been alive. ***v1.0. Includes source in assembler.***

MouseXY - Shows the mouse coordinates and the color at that position. It can be moved from screen to screen (automatically evacuates any closing screen). Is able to show coordinates even when you are moving/resizing windows or moving WB icons. ***v1.1, an update to v1.0 on disk 483.*** Includes source in assembler.

PictSaver - Cut rectangular portions of any screen and store them on disk as IFF-ILBM files. Easy saving of windows and entire screens to disk. ***v2.0, an update to 'PicSaver' v1.0 on disk 494. Includes source in assembler.***

PReader - All purpose reader that displays text, pictures, sounds, and animations, all of which may be uncompressed or compressed with a companion compression program (not included). Text can include embedded static or animated illustrations and sounds. ***v5.1, freeware, binary only.***

Spectrogram - Spectrogram computes a frequency analysis of any 8 bit audio data file and creates a high resolution color display showing frequency content versus time. Display color is continuously adjustable. This type of display when applied to the human voice has been called a voiceprint. This technique has also been used to analyse sounds of many kinds of animals including birds, dolphins, whales, etc. The audio data file can be replayed at any desired rate, giving a simultaneous audio and visual representation of the sample. A selection of interesting audio samples for analysis by Amiga Spectrogram is included. ***v6.3, binary only.***

TD - Like 'TrackDisplay' on disk 399. It monitors and displays the current track for each floppy disk connected to the Amiga. ***v2.0, an update to v1.0 on disk 483. Includes source in assembler.***

WBplane - 2 very small tools to change the depth of the WB screen. AddWBplane adds a bitplane. SubWBplane subtracts a bitplane. Both can be run from both CLI and WB. ***v1.0. Includes source in assembler.***

DISK 544

AWP - Animates any wait pointer like the one in WB 2.0. It installs a vertical blank interrupt to minimise CPU usage and is written 100% in assembler for maximum efficiency. It uses two hands for the clock, like it should be, and has nine different user selectable speeds. Requires AmigaDOS 2.0. ***v1.0, binary only.***

EraseDisk - Used to erase a disk by setting all bits on the disk to zero. ***v0.69, includes source in assembly.***

LanderGame - Lander 3DX is an X-Specs 3D Lunar Lander game. Maneuver your landing craft over a three dimensional fractal lunar landscape searching for a safe place to land. Watch your fuel, altitude, and slope of the surface beneath you. Fly your craft over, around, and behind the lunar peaks. Digitized sound. Two alternate lunar scenery files included. Requires X-Specs 3D glasses. Spectacular. Binary only.

RaiderGame - Raider 3DX is a classic space strategy game for X-Specs 3D. Search for enemy on a 3D map of the galaxy. Warp transport to trouble spots and protect the Federation bases. Blast the enemy with your energy torpedoes. But watch your own energy reserves since you are the last hope of the galaxy. Digitised sound. Amazing 3D action. Requires X-Specs 3D glasses. Binary only.

TurboGIF - Demo of a very fast GIF viewer, three to fifteen times faster than similar programs. Currently TurboGIF produces very high resolution black and white images only. Makes an excellent 'GIF previewer' to decide if a particular GIF is worth spending the time converting with one of the other converters. Shareware, ***v1.0, binary only.***

ZScroll - A short program which scrolls ASCII text files in a small window on your WB screen. Includes both English and German versions. ***v1.0, includes source.***

DISK 545

DrawMap - Release 3.1 of a program for drawing representations of the Earth's surface. This release generates maps in any combination of 16 colors with full user palette control, larger map files with national boundaries, faster generation of box and globe views, an improved online Help facility, provision for saving and printing displays, and general tightening of the source code. Accelerated vrequiring a 68020 CPU and 68881 FPU also provided. Full source code included. Requires 1.2 megabytes of memory. ***Update to v2.25d on disk 485.***

DISK 546

2View - 2View is a ILBM picture viewer for use under WB 2.0. It supports all standard Amiga graphics modes, ARexx, and both the CLI and WB. A list of files to display can be used, or each filename can be given individually. Each picture that is displayed can be shown for a specified amount of time, or until the user clicks on the left mouse button. ***v1.11, includes source.***

Budget - Helps with managing personal finances. ***v1.3.3, an update to v1.302 on disk 452. Binary only.***

DiskPrint - Prints disk labels (for 3.5" and 5.25" disks), primarily for FD library disks, with the ability to create, handle, load and save label library files so labels for most FD disks are available after a few mouse clicks. Features include different label sizes, library files, directory- read-in, direct disk contents read-in, label library functions and printing labels for a whole serie of disks in one turn. Works fine with every printer connected to the parallel port. ***v3.1.2, an update to v2.7.2 on disk 461. Shareware, binary only.***

DSound - DSound is 8SVX sound sample player that plays samples directly off the hard drive. The sound sample is played as it is loaded, making it possible to play sound samples of any length even under limited memory conditions. ***v0.91a, includes source.***

Icons - 2 collections of high-quality, consistently designed icons for WB. The color collections will require an 8 color WB (i.e. WB 2.0). The black and white collections are useable on any normal 4 color WB. One set of icons is based on the icons supplied with the GEM windowing system, and the other set is modeled after the icons on a Silicon Graphics Personal Iris. A bonus set of ray-traced icons is included.

WBLink - WBLink corrects a deficiency in WB 2.0: the inability to create links to files and directories from WB. WBLink puts an 'AppIcon' on the WB screen that makes a link to any file or directory that is dropped on it. For WB 2.0 or later. ***v1.00, includes source.***

DISK 547

EasyExpress - A compiler tool for the users of Charlie Gibbs' A68k assembler and The Software Distillery's BLink. EasyExpress does the same job better than your batch file and is much easier to change for current use. If you use many object files, EasyExpress can make your life much easier. You can do almost everything via mouse and just watch how easily the compilation of your program happens. Binary only.

FindName - To be used in scripts. Verify the presence of certain structures in RAM. You can currently search for devices, libraries, memory, messageports, resources and tasks. The search is done by name. ***v1.0, includes source in assembly.***

MMBShift - Lets you use the middle mouse-button (MMB) (on a three-button mouse) as a SHIFT-key when selecting multiple icons on the WB. Only uses 166 bytes of memory. ***v1.0, includes source in assembly.***

PowerSource - For creating and editing intuition gadgets and menus. Previously known as GadgetED (disk 475). Includes a palette editor, generation of either C or assembly source, and binary saving for later loading and editing. ***v3.0, includes source.***

RMBShift - Lets you use the right mouse-button (RMB) as a SHIFT-key when selecting multiple icons on the WB. Only uses 174 bytes of memory. ***v1.0, includes source in assembly.***

VideoMaxe - Manage your video tape collection. Both program and documentation are in German. No English at this time. ***v3.00, binary only.***

View - Text displayer with many controls and features including searches, file requestors, jump to editor etc. ***v1.3, an update to v1.0 on disk 504. Includes source.***

DISK 548

FreePaint - Painting program, like DPaint. ***v35z, binary only.***

LabelMaker - Allows you to create fancy, full sized, colored labels for 3.5" floppy disks. ***v1.5, includes source.***

MambaMove - Game with the goal of moving an apple eating snake inside four walls until an exit appears. Includes source.

MultiInstall - Script driven program for the installation of larger program packages. Executes CLI like script files in a simple language. ***v1.0, includes source.***

SandGlass - Animates the original WB busy pointer. Only for WB/Kickstart up to v1.3. ***v1.0, includes source.***

TG - 'Eyes' program. Includes source.

DISK 549

Bugs - Another gag-program. Be careful! It may distroy graphics, but nothing else! Can be stopped by pressing the firebutton of a joystick in port 1. Includes source in Modula II.

FFEX - Creates Fractals. Lots of features. Uses an interesting algorithm for extra speed. Source includes modules for reading/writing ILBM pictures, and for using the ARP filerequester in modula-II. ***v4.0.***

FontList - Prints a list of the fonts in the FONTS: device to the printer. Prints name, available sizes and some text using the specified font. Includes source in Modula II.

M2Icons - New Icons for the M2Amiga System. Includes a script for easy installation.

MouseMagic - Gag-program. Can be stopped by closing its window. Includes source in Modula II.

Reversi - Game. Features 'intelligent' computer opponent. Includes source in Modula II.

VerseWise - Gospel (Matthew, Mark, Luke, & John) v1.0 of a Bible view/output/search program. Jump to any specific verse, output scripture to a disk file, or find verses containing one or more specific words. Compressed. Binary only.

DISK 550

BeBopDemo - Demo of commercial game BeBop 'N Drop. BeBop 'N Drop is a real-time graphical arcade puzzle game, an enhanced version of the popular shareware game Obsess-O-Matic. Binary only.

ICalc - Expression calculator with many powerful features, including user-defined functions and variables, many built-in functions, script files, and special looping constructs. ***v1.1, an update to v1.0 on disk 472. Includes source.*** ❑

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The Amiga 3000 and Workbench 2.x Compatibility Guide

Hard Drive Installation
System friendliness
Game Ratings

by Scott Shambarger

The information in the following list is not 'absolute'. I have done my best to leave unknown characteristics blank (.); Please do not abandon hope of a game working on the A3000 just because it is listed as non-functional here. Why? I did not test all these games myself, there may be more than one version on sale, or there may be a variety of 'fixes' available not listed that can be used to make the game work.

***Important Note:* I take no responsibility for damage or loss with regards to the patches in the footnotes. Please only perform them on backups. Most patches are for copies of files on the hard drive, not the original!**

KEY : Program Type

PD Suffix with 'PD' if the program is not a commercial product, but is public domain, freeware, or shareware!
game for commercial games.
data for supplemental data disks to commercial programs or games.
draw for paint, animation and design programs.
util for utilities.
musc for music, MIDI, and related programs.
sprd for spreadsheets, databases, etc.
comm for communications programs.
word for word processors or other text programs.
demo for demos of commercial programs or animations, (assumed PD).
emul for emulations of other operating systems.
misc for programs not fitting in other categories.

FOOTNOTES: Footnotes are listed in any of the following sections. Their format is: /# # is the number of the footnote. Footnotes are listed at the END of the list.

A3000

. UNTESTED
Y RUNS on the machine under at least system 1.3.2, no modification necessary
Y:% RUNS on the machine, but only under the certain conditions. Patches and other third party assistances should be footnoted. % can include:

- **2** functions only under system 2.0.
- ***** functions, but there are mild GRAPHIC glitches on A3000.
- ****** functions, but there are SEVERE GRAPHIC glitches on A3000.
- **P** PATCH required, see footnotes for what pro gram to use, or how to do it yourself.
- **C** CPU CACHES must be turned off for program to function.
- **F** Fast memory must be disabled for program to run, (ie. NoFastMem).
- **f** Recommended that fast memory be disabled. This slows the game down and makes it more playable. Not applied to games that run better fast, and means game will still run WITH fast memory.
- **B** Preceding F, C, or f. Caches or fast memory must be disabled during the boot procedure. This is usually for games that boot from the bootblock and won't run from workbench/CLI. See Recommended Utilities (below) for pro grams to do this.

> runs on the 3000, but game SPEED is accelerated and game is difficult or impossible to play, (try Bf)
S loses sound sporadically or has poor sound on A3000.
N:% DOES NOT RUN on the A3000 under any known conditions. (no patches, CPU settings, etc.)
% matches either:

- **E** fails due to a CPU exception, (any kind).
- **O** fails due to some other program error, and the program either freezes or does not perform correctly.

HD

. UNTESTED
Y RUNS off a hard drive, but protection unspecified.
Y:% RUNS off a hard drive, qualifier specifies key disk, manual, etc. or whether there is a patch do make it work, (should be footnoted).
% can include:
+ Runs pure, no protection.
A "assigns" must be made for HD copy to work, usually game disk assigned to HD drawer.
K key disk required.
M uses a "page 21, line 7, word 5" copy from manual method, or similar.
P patch required, see footnote for what program to use, or how to do it yourself.
N:% DOES NOT INSTALL on a hard drive by ANY known means.
% matches either:
B Disk must be booted as disk has custom bootblock.
D Protection on disk makes it impossible to install on HD.

System Friendliness: SF

. UNTESTED
M% MULTITASKS with other programs. These programs will allow other programs to run AT THE SAME TIME. Programs that must pause to allow multitasking are in the 'F' category.
F% FORBIDS multitasking. These programs will temporarily halt other programs from running, but will return control to the system either during a pause or after the program exits.
T% TAKESOVER the system and either does not return control to the system, or crashes the system upon an exit.
This is classic of many games.
% matches:
+ Program can be started either from Workbench 1.3/2.0 or from CLI.
- Program must be booted, either because it loads from a custom bootblock or it requires an old version of the Workbench (ie. 1.2) to run.
1 Program is more than one disk, but will only use ONE drive, (requires switching disks needlessly).
2 Program will use additional disk drives if available.
Scale of system friendliness:

M+ M- F+ F- T+ T-
Friendly <—— ——> Unfriendly

Game Ratings

This rating system is based on votes submitted in an Internet VIDEO GAMES RATINGS REPORT, and applies only to games. The poll is organized and run by Chuck Musciano, John Leo, and Eric Ng. They deserve applause for their efforts in providing this rating system. Thank you also to all those who submitted to the report. Information on the report can be found through regular postings in comp.sys.amiga.games and the organizers can be contacted through video-request@irss.njit.edu.

Rating date of this list: Aug. '91.

. UNRATED as of last poll.
x.x:# RATED
x.x Average of votes for the game based on the following scale:
8-10.0 Worth buying at full price.
6-7.0 Worth buying at a discount, or if you're particularly interested in this kind of game.
3-5.0 Only worth renting.
2.0 Only worth playing for free, and only for a few minutes.
1.0 Worthless.
Total number of votes for the game.

Recommended Utilities

The following list of utilities should be in every A3000 software collection. If you don't already have these utilities, they should be available on local BBSs, Bix, Genie, popular Internet FTP sites, etc.
'newzap' - This utility can be used to edit DOS files byte by byte. Patches explained in the footnotes of this list can be applied with this program using the ASCII search feature, and by typing new data/values manually.
'bootcache' - This program will disable CPU CACHES upon reboot of the system. This will help many programs work correctly on the A3000.
'disable' I wrote this program to expand on 'bootcache.' It will turn off CPU CACHES and/or FAST MEMORY in the A3000 during a reboot. This program will work under both 1.3 and 2.x. I will make an effort to upload this program to Genie, Bix, and several FTP sites, (ie. ab20.larc.nasa.gov).
'setcpu' Will disable/enable CPU CACHES immediately, but will not survive a reboot. ('cpu' available with 2.x).
'nofastmem' Will disable FAST MEMORY immediately, but will not survive a reboot.

A3000 Compatibility List v2.0 Machine Systems

by Scott m. Shambarger

Program Name	Type	A3000	2.x	HD	SF	Ratings
A10 Tank Killer	game	Y	Y	Y:+	F+2	6.5:20
Aaargh!	game	Y	Y:04	N:D	T-	.
Access v1.42	comm	Y	Y:04	Y:+	M+	
Aegis Draw	draw	Y	Y	Y:+	M+	
Alien Syndrome	game	Y	.	Y	.	4.5:38
Amax-II (2.0 & 2.06)	emul	Y	Y:04	Y:+/19	T+	
AmiCron	misc	Y	Y	.	.	
Amiga Karate	game	Y	N:03	N:D	T+	.
AmigaVision	misc	Y	Y:04	Y:+	M+	
Arazok's Tomb	game	Y:F	Y:04F	N:D	T-	.
Arc v.23	utilPD	Y	Y:04	Y:+	M+	
Arkanoid	game	N	TN:04	.	.	7.0:53
Arkanoid II: Revenge of Doh	game	Y	Y:04	N:B	T-	7.1:34
Armour-Geddon	game	N	N:03	N:B	T-2	.
Arthur: The Quest for Excalibur	game	Y	Y:04	Y	.	6.5:2
Art Department Prof. v1.0.3	draw	Y	Y:04	Y:+	M+	
ARTM	misc	Y	Y	.	.	
Asteroids	game	PD	Y:F	Y:04F	Y:+	M+ .
ATalk III	comm	Y	Y:04	Y:+	M+	
Atomino	game	Y	Y:04	Y	T	.
Audiomaster III	musc	Y	Y:04	Y:+	M+	
Aunt Arctic Adventure	game	N	TN:04	N	.	6.0:3
Awesome	game	Y	X:04	N:B	T-2	6.2:20
Aztec C	util	Y	Y:04	Y:+	M+	

Program Name	Type	A3000	2.x	HD	SF	Ratings
BAAL	game	Y	.	.	.	5.4:19
Ball	game	PD	Y/28	Y/28	Y:+	. .
Ballistix	game	Y:BC	Y:04BC	N:B	T-	5.9:29
Bandit Kings of Ancient China	game	Y	Y:04	Y:M	M+2	8.0:7
Barataccus	game	Y:Bf	X:04	N:B	T-	.
Barbarian	game	N:E	X:04	N:B	T-	5.2:43
Bard's Tale	game	N:E	N:03	Y:AM	.	6.7:35
Bard's Tale II	game	Y:F	Y:04F	Y:AM	M+2	7.1:33
Bard's Tale III	game	Y	Y:04	Y:+	M+	10.0:1
Batman: The Movie	game	Y	Y:04	N:B	T-	5.6:30
Battle Chess	game	Y	Y:04	Y:M	F+	7.1:76
Battle Chess II	game	Y	.	Y	.	.
Battle Force v3.01-3.77	game	PD	Y	Y:04	Y:+	T-(!) .
Battle Squadron	game	Y:**	Y:04**	N:B	T-	8.1:40
Battletech (infocom)	game	Y	Y:04	Y:M	T+	6.8:26
Baud Bandit	comm	Y	Y:04	Y:+	M+	
Beyond Dark Castle	game	Y	.	N	.	.
Beyond Zork	game	Y	Y:04	Y:M	M+	7.4:13
Black Magic	game	N	TN:04	N	.	.
Blastaball	game	Y	Y:04	N:B	T-	.
Blasteroids	game	N:E	N:03	N:B	T-	.
Blood Money	game	Y/14	Y:04/14	N:B	T-1	6.4:40
BloodWych	game	Y	Y:04	.	.	6.2:12
Borrowed Time	game	Y	Y:04	Y:A+/17	M+	.
Breach II	game	Y	Y:04	Y:M	M+	8.1:7
Bubble Bobble	game	Y:Bf	Y:04Bf	N:D	T-	7.2:28
Bubble Ghost	game	Y	Y	.	.	.
Buck Rogers	game	Y:BF	TN:02	Y	F	.

Program Name	Type	A3000	2.x	HD	SF	Ratings
Buddysystem	misc	Y	Y:04	Y:+	M+	
Budokan	game	Y	.	N	.	6.7:18
Buggy Boy	game	Y	Y:04	Y:+	T+	6.1:26
Caligari PRO Demo	demo	Y	Y:04/42	Y:+	F+	
Captain Blood	game	N	TN:04	N	.	5.2:17
Captive	game	Y	Y:04/9	N:B	T+	5.9:9
Centurion: Defender of Rome	game	Y	Y:04	Y:M	M+	8.0:1
Chamber of Sci-Mutant Priest	game	N	TN:04	N	.	.
Champions of Krynn	game	Y	Y:04	Y:M	M+2	7.5:28
Chaos Strikes Back	game	Y	X:04	N:D	T+	8.5:21
Chessmaster 2000	game	Y	Y:04	Y:A+	M+	7.0:24
Chessmaster 2100	game	Y	Y:04	Y:M	M+	7.0:6
Chuck Yeager's AFT 2.0	game	Y:BC	Y:04BC	N	T	.
Crystal Hammer	game	Y:BF	N:03	.	T+	6.2:19
Crystal Quest	game	Y	Y:04	Y:A+	.	.
Dark Castle	game	Y:Cf	Y:04Cf	Y:AK/37	F+2	6.2:27
Dark Century	game	N	TN:04	N	.	.
Das Boot	game	Y	.	Y	.	.
DataTax	misc	Y	.	Y	M+	
dBMAN v5.2	sprd	Y	Y:*	Y	M+	
dBMAN v5.3	sprd	Y	Y	Y	M+	
Death Bringer	game	Y	N:03	N:B	T-1	.
Death Sword	game	Y:BCf	X:04	N:D	F-/43	.
Defender of the Crown	game	Y:C	Y:04C	Y:AK/38	T+2	6.3:60
Deja Vu	game	Y	Y:04	N:D	T+	6.6:18
Deluxe Music Construction Set	musc	Y/27	Y:04/27	Y:+	M+	
Deluxe PhotoLab	draw	Y	Y:04	Y:+	M+	
Deluxe Paint III	draw	Y	Y:04/10	Y:+	M+	
Deluxe Video III	draw	Y	TN	Y:+	M+	
Design 3D	draw	Y	TN	Y:+	M+	
Designworks v1.0	draw	Y	Y:04	Y:+	M+	
Diga! v2.02	comm	Y	Y:04	Y:+	M+	
DigiPaint 3	draw	Y	Y:04	Y:+	M+	
DigiView 4.0	draw	Y:*/11	Y:04*/11	Y:+	M+	
Disk Master v1.4	util	Y	Y:04	Y:+	M+	
Distant Suns	draw	Y	Y:04	Y	.	
DNet	comm	PD Y	Y:04	Y:A+	M+	
Double Dragon	game	Y	Y:04	N:B	T-	4.0:26
Double Dragon II	game	N	TN:04	.	.	6.5:2
Dr. T's KCS level II v3.02	musc	Y:C	Y:04C	Y:K	M+	

Dr. T's KCS level II v3.05-3.5	musc	Y	Y:04	Y:+	M+	
Dragon Force	game	Y	Y:04	Y	.	6.8:6
Dragon's Lair I	game	Y/45	TN:04	.	.	5.1:31
Dragon's Lair: Escape from Singe	game	Y	TN:04	Y:M	M+2	.
Dragon's of Flame	game	N	TN:04	.	.	.
Drakkhen v1.1	game	Y:BC	Y:BC	N:B	T-1	7.7:26
Drip	gamePD	N:O	X:04	Y:+	F+	7.4:23
Dungeon Master	game	Y	N:03	Y:PK/2	T+	8.9:84
DynaCADD v1.84	draw	Y	Y:04	Y:+	M+	
EbonStar	game	Y	Y:04	Y:AK/15	T+/15	.
Elite	game	Y	Y:04	N:B	T-	7.7:38
Emerald Mine	game	Y	TN	.	.	7.7:29
Empire 2.05 & 2.1 (Interstel)	game	Y	Y	Y:M	M+	8.0:35
Eye of the Beholder	game	Y	Y:04*/31	Y	F+	8.0:5
Excellence!	word	Y	Y	Y:+	M+	
F-16 Combat Pilot	game	N	TN:04	.	.	6.6:19
F-16 Mission Disk	data	N	TN:04	.	.	8.5:23
F/A-18 Interceptor	game	Y	Y:04	Y:PAM/3	T+	7.9:75
Faery Tale Adventure	game	Y	Y:04*S	N:D	F-	7.4:35
Falcon v1.1	game	Y	TN	Y	T	7.5:60
Falcon Mission 1 (floppy)	data	Y	TN	n/a	T	8.5:23
Falcon Mission 1 (HD)	data	Y/8	Y/8	Y	T	"
Fantavision	draw	Y	Y	.	.	
Fire Brigade	game	Y	.	Y	.	5.1:12
Fire Power	game	Y	Y:04/20	Y:AK/39	T+	.
Flight Simulator	game	Y	.	Y	.	.
Flight Simulator II v1.0	game	Y	Y:04	N:D	T-	6.4:27
Footman	game	Y:>	.	N	.	.
Full Metal Planet	game	Y	Y:04	N:B	T-	5.0:12
Future Wars	game	Y:BC	Y:04BC	Y:M	T+2	6.8:12
Future Sound 500	musc	Y	Y:04	Y:+	M+	
Gauntlet II	game	N	X:02	N:B	T-	7.0:50
Gee Bee Air Ralley	game	Y	Y:04	Y:+	T+	5.3:25
Ghostbusters II	game	Y	TN	.	.	4.1:15
Gold of the Americas	game	Y	Y	.	.	6.7:3
Grabbit	util	Y	Y	.	.	
Gravity Wars 2.0	game	Y	.	Y	.	.
Greg Norman Shark Attack Golf	game	N	TN:04	N	.	5.2:4
Gunship	game	N	TN:04	Y:K	.	6.8:24
Halls of Montezuma	game	Y	TN	.	.	
Hard 'N Heavy	game	N:O	X:04	N:B	T-	.
Harpoon	game	Y	TN:02	Y:+	.	7.7:22
Heart of the Dragon	game	Y	.	Y	.	.
Hero's Quest I	game	Y	Y:04	Y:M/1	M-1/1	.
Hostage	game	Y	Y	.	.	6.0:22
Hybris	game	N	TN:04	N	.	7.4:43
Imagine 1.0	draw	Y	Y:04	Y:+	M+	
Immortal	game	Y	Y	N	.	6.8:17
Indianapolis 500	game	Y	Y:04	N	.	7.9:38
Infocom Text Adventure	game	Y	.	Y	.	.
International Soccer Challenge	game	N	TN:04	N	.	6.0:2
IntuiTracker	util	Y	Y	.	.	
Ishido	game	Y	.	Y	.	6.6:10
It Came From the Desert	game	N	TN:04	Y	.	7.1:44
Journey	game	Y	Y:04	Y:+	M+	.
JRComm v1.0 (<v1.0 is PD)	comm	Y	Y:04	Y:A+	M+	
Karate Kid II	game	N	TN:04	.	.	.
Killing Game Show	game	Y/36	Y:04/36	N:B	T-	7.8:39
KindWords v2.0	word	Y	TN:02/26	Y:+	M+	
King of Chicago	game	Y:C	Y:04C	Y:AK/22	M+2/16	7.2:5
King's Quest III	game	Y:C	Y:04C/34	Y:K	M+	.
Knight Orc	game	Y	Y:04	Y:+	T+	.
Lattice C 5.10a	util	Y	Y:04	Y:A+	M+	
Leather Goddesses of Phobos	game	Y	Y:04	Y:+	M+	6.6:17
Leisure Suit Larry III	game	Y	Y:04	Y:M/1	M-1/1	6.6:5
Lemmings	game	Y	Y:04	N:B	T-	9.3:59
Leonardo	game	Y	.	N	.	.
Lharc	utilPD	Y	Y:04	Y:+	M+	
Lhwarp	utilPD	Y	Y:04	Y:+	M+	
Lords of the Rising Sun	game	Y	Y:04	Y:AK	F+2	6.7:28
M1 Tank Platoon	game	Y	Y:04	Y:+	.	7.6:23
MacView	misc	Y	Y	.	.	
Major Motion	game	Y	Y	N:D	T-	5.7:3
MakeC v1.9	misc	Y	Y	Y	M+	
MakeC v2.0	misc	N:2	Y	Y	M+	
Manic Mansion	game	N	TN:04	Y	.	.
Mandel Mountains	miscPD	Y	Y:04	Y:+	.	
Marble Madness	game	N:E	N:03	Y:+/18	T+	6.9:60
Matrix Marauders	game	N	TN:04	N	.	.
Mavis Beacon Teaches Typing	game	Y	Y:04	Y:K	F+	.
MaxiPlan Spreadsheet	sprd	Y	Y	.	M+	
Mean 18	game	Y	Y:04	Y:+	M+	5.4:7
MED 3.00	muscPD	Y	Y:04	.	M+	
Mechforce v3.77	gamePD	Y	Y:04	Y:+	.	7.3:9
Megaball	gamePD	Y	Y:04	Y:+	.	.
Menace	game	N:O	X:04	N:B	T-	6.8:22
MessyDOS	utilPD	Y	Y:04/44	Y:+	M+	
MicroFiche Filer Plus	sprd	Y	Y	.	M+	
Might & Magic II	game	Y	Y:04	Y:A+	.	.
Mindwalker	game	Y	Y:04	Y:A+	F+	6.8:11
Missile Command	gamePD	Y:F>	Y:04F>	Y:+	M+	.
Mission Elevator	game	Y:PBF/35	Y:04PBF/Y:+/35		T+	.
Monkey Island	game	Y	Y:04	.	.	.
Monopoly	gamePD	Y	Y:04	Y:+	M+	
MrBackup	util	Y	Y	Y:+	M+	.
Nascar Challenge	game	Y	Y:04	Y:M	T+2	.
NetHack 3.0 patch 10	gamePD	Y	Y:04	Y:A+	M+	7.0:2
Neuromancer	game	Y:BCS	Y:04BCS	Y:MK	T+	6.6:19
Never Mind	game	Y	Y:04	N:B	T-	.
NewTek Demo 1 & 3	demo	Y/11	Y:04/11	Y:+	M+	
NewZap	utilPD	Y	Y:04	Y:+	M+	
Night Shift	game	Y	Y:04	Y:K	F+	6.5:8
Nuclear War	game	Y	Y:04	Y:K	.	7.4:38
N.Y. Warriors	game	Y	Y:04/46	.	.	5.8:17

Obliterator	game	Y	.	.	.	5.5:15
Obsess-O-Matic						
1.0-3.0 (tetris)	gamePD	Y	Y:04	Y:+	M+	.
Ogre	game	Y	Y:04	Y:K	T+	.
Oil Empirium	game	N	TN:04	Y	.	.
Omega	gamePD	Y:F	Y:04F/40	Y:+	M+	6.3:19
Online! Platinum	comm	Y	TN:02/24	Y:A+	M+	
Operation Wolf	game	N	TN:04	.	.	.
Outrun	game	Y:>	TN	.	.	4.8:17
P.O.W.	game	Y	TN	.	.	.
Pacmania	game	Y:**/7	.	N	.	.
Pawn	game	Y	Y:04	Y:M	T-	.
Pen Pal v1.3.18	word	Y	TN	Y:+	M+	
PageSetter 1.0	word	Y	Y:04	Y:+	M+	
PageSetter II	word	Y	Y	.	M+	
Pagestream v2.1	word	Y	Y:04	Y:+	M+	
PaperBoy	game	Y	.	N	.	4.9:12
Perfect Sound 3.0	musc	Y	Y	Y	M+	
Pirates!	game	Y	Y:04	Y:A+	.	8.5:43
PKAZip	miscPD	Y/12	.	Y:+	M+	
Pocoman	game	Y	Y:04	Y	.	8.2:11
Pool of Radience	game	Y:S	Y:04S	Y	M+	7.1:19
Populous	game	Y:PBCf/6	Y:04PBCf	Y:PK/6	T+	8.1:90
Ports of Call	game	Y	Y	Y	.	6.5:29
Powermonger	game	Y	TN:04	N	T	7.7:56
Powerstyx	game	Y	TN:04	N:B	T-	.
Pro Video Gold	draw	Y	Y	.	M+	
Professional Draw	draw	Y	Y:04	Y:A+	M+	
Project D 2.0	util	Y:CF/35	Y:04CF	Y:+	F+	
Projectyle	game	N	TN:04	.	.	.
Prospector	game	Y	Y:S	Y	.	.
Pro Tennis Tour 2	game	Y	.	Y	.	.
Prowrite 2.5, 3.0 & 3.1	word	Y	Y:04	Y:+	M+	
Puffy's Saga	game	Y	Y:04	N:B	T-	.
Qix	game	.	TN/30	.	.	6.4:17
Quarterback v4.2	util	Y	Y:04	Y:+	.	
Quarterback Tools						
v1.3-1.5	util	Y	Y:04	Y:+	.	
QuickWrite v1.0	word	Y	Y:04	Y:+	M+	
Rainbow Islands	game	Y:BC	Y:04BC	.	.	.
Rambo III	game	Y	Y:04	.	.	4.2:12
RBI Baseball	game	N	N:03	N:B	T-	.
Reach for the Stars	game	Y:F	Y:04F	Y:A+	M+	6.6:8
Red Storm Rising	game	Y	Y:04	Y:A+	.	7.2:15
Return of the Jedi	game	N:E	N:03	.	.	5.7:3
Rick Dangerous	game	N	TN:04	.	.	7.2:26
Rick Dangerous II	game	Y	.	N	.	7.5:13
Risk v1.9	game	Y	Y:04	N:D	T-	6.0:17
Road Wars	game	N:E	N:03	N:B	T-	.
Robocop 2	game	N:O	X:04	N:B	T-	5.1:11
Rocket Ranger	game	Y	Y:04	N:D	F+2	7.1:35
Rogue	game	Y:F	Y:04F	Y:K	M+	.
Rolling Thunder	game	Y:>S/29	TN:04**	N:D	T-	.
Romance of the						
Three Kingdoms	game	Y	.	Y	.	8.4:13
Scanlab	draw	Y	Y:04	Y:+	M+	
Scene Generator	draw	Y	Y:04	Y:+	F+	
Scrabble	game	Y	Y:04	N:D	M-	.
Sculpt-Animate 4D	draw	Y	Y:04	Y	M+	
Shadow of the Beast	game	N:O	X:04	N:B	T-	6.9:70
Shadow of the Beast II	game	N:O/5	X:04	N:B	T-	6.4:42
ShadowGate	game	N	TN:04	.	.	6.4:13
Shanghai	game	Y:C	.	Y	.	8.4:42
Shinobi	game	N	TN:04	.	.	.
Shogun	game	Y	Y:04	Y	.	.
Shoot 'Em Up						
Construction Kit	misc	Y	Y:04	Y:+	F+	4.9:15
S.E.U.C.K. games	gamePD	Y	Y:04	Y:+	F+	
Sidewinder	game	Y:S	Y:04S	Y/25	.	6.6:33
Silkworm	game	N:O/21	X:04	N:B	T-	7.6:39
SimCity 1.0	game	Y	N:03	N:D/41	M+	.
SimCity 1.1	game	Y	.	Y:K	M+	.
SimCity 1.2	game	Y	Y:04	Y:+	M+	8.2:106
Sinbad	game	Y:C	Y:04C	Y:K/22	T+	.
688 Attack Sub	game	Y	Y:04	Y:M	M+	6.5:30
SkyChase	game	N	TN:04	.	.	.
Skyfox	game	N:O	N:03	.	T	4.5:17
Snipit	game	Y	Y	.	.	.
Sonix	musc	Y:P/13	Y:04P/13	Y:+	M+	
Space Ace	game	Y	.	N	.	.
Space Harrier	game	Y	TN:04	N	.	.
Space Harrier II	game	N	N:03	N:B	T-	.
Speedball	game	N	X:04	N:B	T-	7.9:60
Speedball II	game	N	TN:04	.	.	8.7:24
Spot (7-up game)	game	Y	Y:02	.	.	7.3:3
Star Control	game	Y	.	.	.	7.6:22
Star Trek	gamePD	Y	N:03	Y:A+	F+	5.2:4
Star Wars	game	Y:>	TN	.	.	6.5:26
Starflight	game	Y	TN	Y:A+	.	5.9:14
Starglider	game	Y:>	Y:04>	N	.	6.1:21
Stellar Crusade	game	Y	Y	Y:M	.	.
Storm Across Europe	game	Y	TN:02	Y:+	.	.
Strategic Defense						
Init.(S.D.I.)	game	Y:Bf	Y:04Bf	Y:K	T+	.
Super-Ami Copy II v1.0	util	Y	Y:04	Y:+	F+	
SuperBase Personal	sprd	Y	Y:04	Y	M+	
SuperBase						
Professional 3.0/4.0	sprd	Y	Y:04	Y	M+	
SuperPlan	sprd	Y	Y:04	Y:A+/32	M+	
SuperStar Ice Hockey	game	Y	TN:04	.	.	.
Sword of Aragon	game	Y	.	Y	.	6.6:10
Sword of Sodan	game	Y	.	N	.	6.5:22
Technocop	game	Y:BCf	N:03	Y:K	.	.
Test Drive	game	Y:BF	Y:04BF	Y:K	T+	5.2:11
Test Drive II: The Duel	game	Y:Bf	Y:04Bf	Y:K/33	T+	6.8:34
Their Finest Hour v1.0	game	N	TN:04	Y:+	.	7.8:24
Their Finest Hour v1.1	game	Y	Y:04	Y:+	.	"
Three Stooges	game	N	TN:04	Y	.	6.2:33
Three-D Breakout	gamePD	Y:F	Y:04F	Y:+	M+	.
Tiger Cub (MIDI)	musc	Y	Y	.	.	
Torch 2081	game	Y	.	.	.	.
Transfer 24	draw	Y	Y:04	Y:+	M+	
TurboMandel	drawPD	Y	Y:04	Y:+	M+	
Turbo Silver 3.0a	draw	Y	Y:04	Y:+	M+	

TV Sports Football	game	Y	TN:04/47	.	.	6.4:36
TxEd+	word	Y	Y:04	Y:+	M+	
Type Attack	game	Y	TN	.	.	.
Typhoon of Steel	game	Y	Y:04BC	N	M	.
Ultra Design	draw	Y	Y:04	Y:+	M+	
U.M.S. II	game	Y	Y:04	Y:+	M+2	9.0:1
Universal Military Simulator	game	Y	.	Y	.	.
Untouchables	game	N:O	TN:04	N	.	.
Vegas Gambler	game	Y	TN	.	.	.
VideoScape 3D	draw	Y	Y:04	Y:+	M+	
VideoTitler	draw	Y	Y:04	Y:+	M+	
VirusX 4.0	utilPD	Y	Y	Y:+	M+	
Vista 1.0	draw	Y	Y:04	Y	.	
VLT up to 5.x	commPD	Y	Y:04	Y:+	M+	
VT100 terminal emulator	commPD	Y	Y:04	Y:+	M+	
Warlock	game	Y/48	Y:04/48	.	.	.
Warlords	game	Y	Y	.	.	7.7:6
Waterloo	game	Y	.	Y	.	.
Where in the World Carmen Sand	game	Y	Y:04	Y:MK	M+	.
Where in the USA Carmen Sand	game	Y	Y:04	Y:MK	M+	.
Who Framed Roger Rabbit	game	Y	Y:04	Y:MA	F+	.
Wings	game	Y	TN:02	Y:M	.	
WordPerfect 4.1	word	Y	Y:04	Y:+	M+	
XCopy III	utilPD	Y	Y	Y	.	
Xenon	game	N	TN:04	.	.	6.0:26
Zany Golf	game	Y	.	Y:K	.	6.9:21
ZeroVirus III	util	Y	Y	Y:+	M+	
Zork Zero	game	Y	.	Y:+	M+	7.2:15
Zoo 2.0	utilPD	Y	Y	Y:+	M+	

Footnotes

(1) Will NOT install on HD on the A3000, in fact attempting to install on A3000 can damage your HD! The game must also be booted to function correctly on the A3000.
(2) Patch ('DMpatch') should be available on BBSs or some FTP sites, but only works for some versions of the game.
(3) Patch can be done with NewZap, just replace all occurances of "df0:" with something you can assign, (like 'f18').
(4) Patch available on many BBS's and networks will remove code-wheel protection.
(5) Although it appears to work with only some graphics glitches, it will crash on some crucial screens.
(6) Patch available on BIX (fixpop.arc).
(7) Glitches so bad, it's almost unplayable.
(8) Will run on 3000 under 2.0 but not 1.3 (past the cockpit scene). However, pressing ESC to get menus crashes the system.
(9) Keyboard is touchy in 2.0.
(10) Hangs under 2.0 during a fill of a patterned area. Fixed in version 3.25.
(11) Dynamic Hi-Res pictures are scrambled, but patch is shipping from Newtek to fix problem.
(12) Crashes arbitrarily...
(13) Need 'patchsonix' available on most networks (bix, etc.)
(14) Graphic glitches on title screen, but runs fine.
(15) Graphic glitches if run from workbench other than its own. For HD install, similar to (38).
(16) Can't multitask if workbench is interlace.
(17) Copying with Project D should make this possible.
(18) Can be deprotected with Marauder II.
(19) Patch called 'FastMax3' will enable you to place the ROMs on your HD.
(20) For Firepower to work on 2.02, you must cancel the startup-sequence and start the program manually through CLI.
(21) Appears to work, but scrambles after about 1 min. of Rating play.
(22) Disk 2 only can be installed on HD.
(23) Run NoFastMem before running game to slow it down.
(24) Screen opens too large under 2.02.
(25) I haven't been able to get the installed game to work on the A3000.
(26) Practically unusable under 2.0, some jerky mouse movements result.
(27) Problems under 1.3.2 and 2.0: selecting MIDI twice will GURU machine and frequently crashes on exit. Works fine under 1.3 (changes to serial.device cause the problem).
(28) Runs a little slower on A3000!
(29) The speed increase on the A3000 actually makes the game more playable.
(30) Crashes predictably under 2.0 after a few levels.
(31) Text strange under 2.0.
(32) Requires dongle.
(33) Similar to (38), just edit file "duel" and pick new name to replace tdboot:. (34) May need to "protect sierra +r"!
(35) Buggy on A3000 - crashes at random; but functions most of the time.
(36) Newer versions work, versions before July '91 won't.
(37) Copy all files to HD. Change references of DC1: to DC2: in file 'Dark Castle'. Then assign DC2: to HD drawer.
(38) Copy all files to HD, (except " " file!). Use newzap on file "Defender" to change all references of Defender1: and Defender2: to Defender3:.
ONLY EDIT REFERENCES THAT HAVE A FILENAME ATTACHED TO THEM! Assign Defender3: to HD drawer. Run with both originals in drives, (or switch as requested).
(39) Similar to
(38), just edit file "FirePower" and pick a new name to replace FirePower:.
(40) Crashes on exit on 2.0.
(41) Will install with keydisk protection, but requires workbench 1.2!
(42) Mouse pointer a little misguided.
(43) Eject disk to quit.
(44) Can't 'cd' to ms0: under 2.x.
(45) Works only if linked to Dragon's Lair:Escape from Singe's Castle.
(46) Can't see disk prompt under 2.x, just wait for drive to stop and insert disk 2.
(47) Has many IO errors during play under 2.x.
(48) No joystick control on A3000, keyboard only.

ACAR Benchmarks

Most games come and go - but the best linger on, setting standards that the others must strive to reach. They're the Benchmarks. And if you haven't got them in your games collection, you're only ever playing the second best. Come with PHIL CAMPBELL on this quick guide to some of the benchmark games. Some of them may be old, but they're still best!

ADVENTURE GAMES

Wonderland

What's the classical definition of an "Adventure game"? Try this. "A textual maze of locations to be explored, puzzles to be solved and dangers to be avoided, played by entering commands from the keyboard, and reading responses on the screen." Yep - been there, done that. And to tell you the truth, the sad fact is that almost every adventure game I have ever played has driven me to distraction. But *Wonderland* is different. In fact, *Wonderland* is a shining example of the state-of-the-art, an adventure for non-adventurers and seasoned players alike.

For a start, *Wonderland* is very forgiving. Older adventure games were more pedantic than an angry wife. Hence, when I find a bottle on the glass table with "DRINK ME" inscribed on the label, I simply type "Drink potion". Some games would refuse to respond - after all, I didn't say "Remove Lid." But *Wonderland* simply removes the lid for me, with the response "You removed the lid first. You get smaller." For adventurers like me, thats avoids about an hour of frustration. Wonderful indeed.

Then there's mapping. Remember the little scraps of paper littering the room last time you played an adventure? The manual alway insists that making a map is essential - and so it is. It's important here too - but *Wonderland* does it for you. The game is entirely self-mapping. Even better, if you want to find your way back to somewhere you've already been, simply point and click on the map and the system will automatically retrace your steps.The intelligent "Help" system is a bonus for average adventurers too. If you're stuck - really stuck - then you can ask for hints. Naturally, though, too much help all at once takes the challenge out of the game, so *Wonderland* offers tips in a number of gentle stages.

I'm stuck. How do I open the door labelled with a large letter "C"? The first time I ask for help I get a very vague hint - "This could be a major or a minor problem." Doesn't really strike a chord, even though I've just come from the music room. Another clue? "For a C door, use a corresponding key." Huh? Not much help either. So finally, the thick-wit version - "The Key in C is on the sheet music on top of the piano." Knew it all along.

Wonderland uses its own custom built windows-style interface called Magnetic Windows. It's beautifully crafted, and lets you open the map window, hints window, main text window and a graphics window all at once. You can re-size them and position them however you like, and use a variety of fonts. The graphics window gives a post-card size view of your location, with delightful William Turner style landscapes that really sparkle from the screen.

Distributed by:
Mindscape
ph 02 899 2277
RRP $79.95

BRAIN TEASERS

Lemmings

I've always said that a game based on a catchy idea will beat all the fancy graphics and sound effects in the world.

Lemmings proves the point perfectly. It's a game based on those furry little rodents that rush off the sides of cliffs in bizarre mass suicide rituals. And without a doubt, it's one of the best and most enjoyable games available in any category.

The aim of the game is simple - save the Lemmings. Hordes of them pour onto a computer screen full of deadly hazards and obstacles, and it's up to you to herd them safely to a small exit leading to a safe new home with plenty of good tucker.

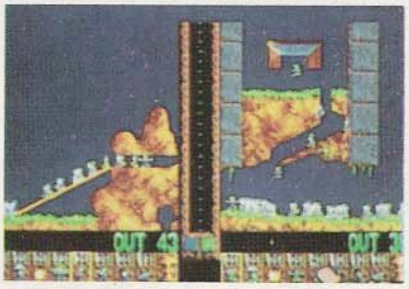
The only tools at your disposal are the Lemmings themselves. A control panel along the bottom of the screen shows a range of special Lemming abilities. Click on one of these, then on the Lemming of your choice, and he'll get to work. There's a climber icon, a floater, a builder, a number of diggers, and most important of all, a blocker. Sound confusing? Well, yes - but not for long.

Imagine for a moment there's a deadly drop on the left of the screen, and a vertical cliff face on the right. When the brainless Lemmings come face to face with the cliff wall, they'll turn around and head back towards the chasm, and certain death. We need a blocker - so click on the blocker icon with the mouse, wait until the first Lemming approaches the hazardous drop, then click on him. He'll stop and put up his arms, blocking all his little mates.

Now for the obstacle. Maybe a digger can tunnel his way through the cliff face - a good idea if it's not too thick. Or maybe it would be better to activate a builder who will construct a stairway of small bricks. The real appeal of the game is that it makes you think - often the obstacles seem impossible, but there's always a way through.The first few levels of the game are easy. From then on, the going gets tough, and you'll really need to use your resources well. Usually, the number of times you can use each icon is limited. To add to the excitement, you're playing to a strict time limit too.

Lemmings is unique. The graphics are delightful - each level has a fascinatingly detailed backdrop, while each tiny Lemming demonstrates an amazing amount of character. Above all, the concept is simple, and the game is lots of fun.

Distributed by Questor, the Amiga version of *Lemmings* originally retailed at $69.95. However, it's now available in a compilation pack with three other top games at around the same price. If you've mastered the original game, look out for *Oh No! More Lemmings*, which adds another batch of even harder levels.



SHOOT-EM-UPS

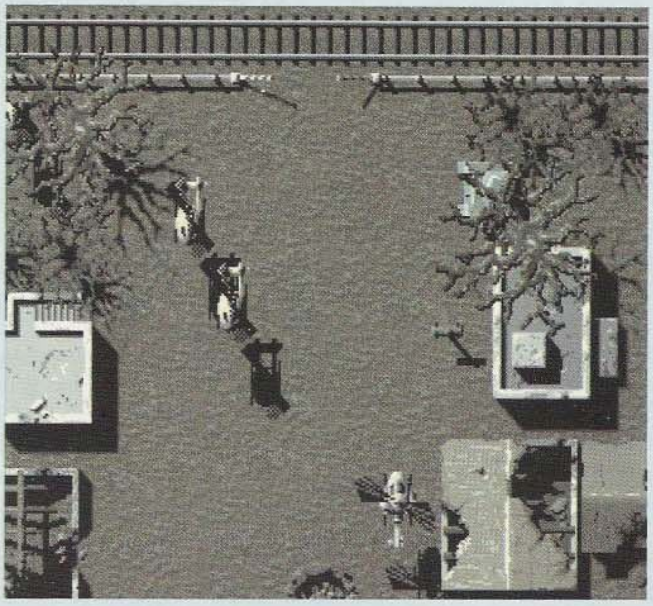
SWIV

These guys must be doing something right. First it was *Silkworm*, then came the sequel SWIV - two of the best shoot-em-ups ever, from the same programming stable.

The action in SWIV is fast and furious. You control either a jeep or a helicopter, travelling up the screen through the most hostile looking landscape you've ever seen. But the landscape is nothin' compared to the enemy forces that rain down on you from the top end of the screen. All I can say is... aaaaargggh!

Animation is fast and smooth, the action is frantic, the graphics are mean and metallic, and the sound track is deafening. Top stuff, and as yet unbeaten in terms of best blast for your bucks.

Distributed by:
Mindscape
ph 02 899 2277
RRP $69.95



SPORTS SIMULATIONS

Jimmy White's Whirlwind Snooker

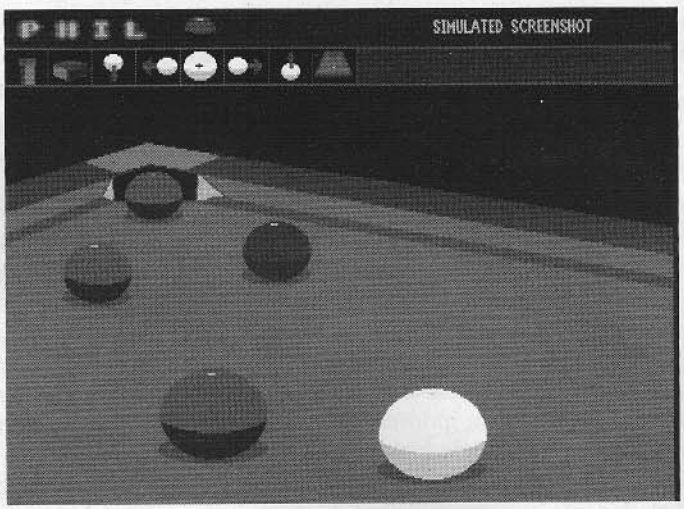
What makes a top class sports simulation? First, playability. Second, the degree to which it captures the feel of the real-life game. And with that in mind, you just can't go past *Jimmy White's Whirlwind Snooker.*

Programmer Archer Maclean has produced a simulation that really feels real. A few zany touches - like balls that spring to life and poke out their tongues - add a touch of spice that make this game stand out from the crowd.

The game opens to a rousing piano rendition of a Scott Joplin rag - perfect music for a pool hall. You can choose to play a friend, or one of three computerised opponents, Tom, Dick and Harry. When you've paid your dues you can challenge the great Jimmy White, currently holding third position in the World Snooker rankings. White is fast, accurate and very popular, a crowd favourite since winning the English Amateur Championship in 1979 at the record age of 16 years.

So let's play ball. It's my break.

As in the real world, the gaps between the balls in the frame are minutely different every time, so the results of the break are unpredictable. I simply close my eyes and hit as hard as I can. Balls spray everywhere, with a satisfying cascade of clickety-clicks. So far, so good.



Cue action is mouse controlled, with a series of icons arranged across the top of the screen. From here you can set top spin and side spin, select the power of your shot, adjust your aim, change your point of view, and even chalk your cue. Here's a hint - if you forget the chalk, attempts to curve the ball will be embarrassing.

The screen display is dynamic, with fast changing views from every possible angle. It's hard to describe, but for the moment, imagine a camera attached to the end of your cue. With the camera "focused" on the cue ball in the centre of the screen, a click on the mouse button will effectively rotate the view of the table around the ball. Confusing at first, but after one or two games you will realise it's a fast and intuitive way to move around the table and set up shots.

This is a game that not only sticks to the rules of real world snooker - it follows the laws of physics to the letter. It's fun to play, impossible to master, and takes up very little space in your loungeroom. All in all, a top class game.

Distributed by:
Mindscape
ph 02 899 2277
RRP $79.95

LIFE SIMULATIONS

Simcity

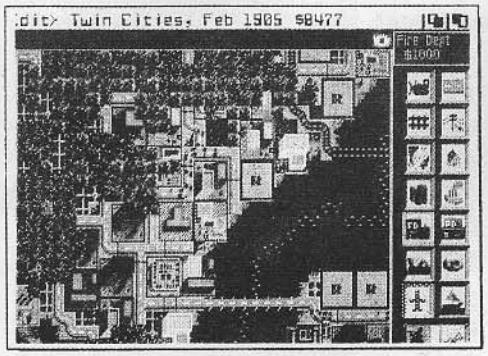
What's a "life simulation"? It's the name I've given to a whole new class of games which - what did you expect - simulate life. And this is the game that got the ball rolling. These days there are plenty of clones, and most of them are very good. There's *Utopia*, there's *Powermonger*, there's *Railroad Tycoon*, and soon there'll be Sid Meier's *Civilisation*. From Maxis, the originators of *Sim City*, there's *Sim Earth* and *Sim Ant*.

But if you're looking for a benchmark, then it has to be the original and best - *Sim City.*

Sim City puts you in charge of a lump of money and a patch of land. There's a bunch of icons that let you build houses, shops, roads, railroads, and power grids, and there's a screen full of statistics that are updated as you create your perfect community.

Best of all, as you create your miniature city on the screen, it springs into life. Build a shopping centre, a road, and a group of houses, and you'll soon see people setting off in their tiny cars to go shopping. Build a railway line and you'll see the trains chuffing backwards and forwards. Build some ports and the ships ply their way backwards and forwards across the water. Before long, it's a hive of activity.

What more do I need to say? We gave *Sim City* the *Game of the Year Award* in 1990, and since then it's gone on to bigger and better things. With good reason! If you haven't got it, get it. And while you're there, pick up a few scenario disks too - there are all sorts of nice add-ons like the *Sim City Graphics* disk, with graphics for Ancient Asian cities, Medieval villages, and Wild Western frontier towns.



Role Playing Gems

There's nothing more frustrating than being stuck in your favourite RPG! Here are some dazzlingly helpful hints.

Bane of the Cosmic Forge (Wizardry)

The password to enter the door in the SE tower of the 1st level is SNOOPCHERI. Use the ROTTEN CHEESE on the MOUSEHOLE.

Some small help for playing the game successfully:

A tremendous source for playing the game can be found in getting *Bane of the Cosmic Forge Compilation* released by Baser Evil on the 6th of March, it contains many helpful maps to the game with marked locations.

When you create your characters, it may be a good idea just to make all of them Dracons. This is untested, but unless you have at least one of this fire breathing race you surely won't survive the game. So maybe it would be good to have more.

Use a good mix of the classes, try to take one of each spell class and a good solid thief that is at full strength. Get a good enough thief and you don't need a fighter. It may be slow, but keep rolling until you get the best character possible.

Be sure to make at least one character female, there are places in the game where this is a must. Don't do it and you'll be sorry later!

Diversify your skills. Have each character specialise in a few skills relative to his class. Don't worry about developing weapons skills, you have no use for them if you created your party correctly.

In fights early in the game use Dracon's breath attack, just be careful not to overextend yourself. Rest after each encounter, backing up your hard work. Always search the area after a combat.

Search each square you step in. Not only this, but search facing all four directions, many things can only be found that way. Thieves are not always true. If you find a lock and have your thief open it, always guess it is POISON unless you are 100% sure (i.e. tried it before) because it is better to suffer something else than to die by getting this wrong.

Don't bash doors early in the game! If your characters are not very strong you will be sorry. Jammed doors do you no good, as you might never be able to open them again. Same goes for picking the lock. Wait until you get a spellcaster capable of conjuring KNOCK KNOCK with at least 18 points (preferably 24) and do it this way. It is much more sure.

Once you know there are secret panels or buttons, keep walking past them until you discover them. Sometimes it takes a while to sense them.

Beyond the Gates

Entering THE END OF TIME DRAWS NEAR will call up a full character editor that allows you to change your stats and add any item to your inventory.

Chaos Strikes Back

Find a dragon and cast MON ZO GOR SAR, then hit ESC to pause the game. Hold down the ALT key and type in LORD LIBRASULUS SMITHES THEE DOWN. Unpause the game and slay the beast. He leaves behind a firestaff and your party will be invincible.

Undocumented Spells:

GOR IR KU - Detects Monsters

GOR IR ROS - Detects fake walls and "invisible" (actually hard to see) pits

GOR IR DAIN - Detects "magic" on screen?

ZO IR NETA - Anchors the map at the point of casting so that as you move around, the map view stays at the anchored position.

It's REALLY easy to kill ANY dragon. Here's how:

1)Prepare all your players with MON IR VEN spells (mega poison cloud)

2) Use the green freeze life box (on the dragon)

3) Cast the spells, and then double up on each player (ie. each player casts two spells for a total of 8)

4) Wait... dinner will be served soon.

Using the Vorpal Blade: If you don't have both Vorpal Blades, you can increase hits/time by passing the weapon back and forth between the two attacking players. (ie. hit, then pass blade to character 2, hit and pass back to character 1 etc.

Contrary to what you may have read elsewhere, everything is affected by fireballs, including knights and dragons. The only exceptions are slime, black flames, and the thing that pops up

Bard's Tale

Load your party, go to the statistics screen for the first player. To get more gold than you will need, transfer all the party's gold to one player. Save him to disk then load him back up and transfer all to another. Keep repeating this process till you have done it to all the players, then exit without saving. Load back up and all your players will have the amount of gold equal to that of the entire party before. Repeat until satisfied.

If you're tired of waiting for morning to come, enter and exit the guild.

Bard's Tale III - The Thief of Fate

For a bit of fun tell the guard at the Mad Gods temple HAMBURGER.

Bard's Tale II - The Destiny Knight

Find a band of illusionists and kill off the front line, have your spellcaster conjure DISRUPT ILLUSION, and you will keep disbelieving and gaining experience.

from the floor.

Crystals of Arborea

Having trouble finding your Crystal Balls?

Go to the main character screen, select Jarel then click on the bottom icon.

Now press CTRL and V to get full life points plus all the special abilities.

Drakken

Create a new set of characters using procedure described in the manual, but with the following changes. When you are asked for the first name, type SUPERVISOR and press Return. Now enter a normal name and continue the creation process. When you use this team of characters, the game works as usual except that when you press F10, all wounds are healed and dead characters are resurrected.

Other sources say when the program asks you for first character type 31415927, hit Return then type SUPERVISOR. Then give your character a name.

All armour, treasure and weapons inside palaces are restocked every time you enter. Send the strongest character in to grab the equipment, then distribute it among your band. If you need some quick gold, do this repeatedly, then go see the weaponsmith.

Dungeon Master

Go to the dungeon entrance and face the door. Cast the spell OH EW RA. You will see someone interesting.

To advance ninjas a level, stand in a hall and throw your weapons. Then get them, and repeat. This also works with magic and fighter levels. Cast a spell at the air, or slash and bash until you gain a level.

Here are some undocumented spells:

YA BRO ROS - Leaves a trail of footprints

VI BRO - Shield poison

DES IR SAR - Darkness

FUL BRO NETA - Fire ball shield

OH KATH RA - Lightning Bolt

ZO - Open doors

DES EW - Weakens non-corporal (undead) beings

Faery Tale Adventure

Take a save game file and use a PD program such as NewZap to patch byte 18 to a non-zero value. Load your saved game, and now these cheat options are enabled:

Arrow Keys	Move rapidly over any terrain
B	Summon Gold Swan
R	Rescue Princess
=	Display coordinates
F10	Location in coordinates
F9	Increase time by 1 hour

Sometimes you can accumulate all the treasure you want by going near the item, pressing the space bar, and then continuing to hit 'T'. You'll receive an infinite supply of that treasure.

Save your position in a dungeon. Then go through it until you run out of keys. When you restore your game, all the doors will be open and you will have a new set of keys. Also works in caves.

Jump on the turtle and start slashing. Your bravery points will go up to infinity and it doesn't hurt you or the turtle.

On the island with the Crystal Castle, press the right mouse button while talking to the Sorceress and your luck will go up to 65. 'ASK'ing the Sorceress several times will usually boost your luck.

If running low on Green keys, use a secret entrance for the fort. It's on the left side, almost level with the door.

Beating the Turtle is not beating, it is pushing, so push the turtle across the land, to use it in special places: The turtle was programmed in asbestos, and can swim in Lava. It can be used to enter the black citadel at the south. Also, while it is present, you are not attacked, but by the time you have the turtle, you are already invincible.

Kings Quest III

When casting a spell and asked to recite a verse just hit RETURN. The King's Quest series of games uses the debug command and interpreter for the programmers (up to KQIII); KQIV doesn't have it because of the tremendous size of the game. Have some fun and press the "ALT" key then "D" then "Return or Enter" (maybe twice) then type in either GET OBJECT (and type in a random number) or "TP" for transport (and a random number) and see what happens. It works, and if you're tired of looking for a certain object the "Get Object" function is great!

Legend of Faerghil

Here are the answers to some of the questions and riddles you'll be asked while you're rummaging around in the dungeons of Faerghil.

In the Elven Palace

Q: Who is Findal's youngest uncle?

A: SCAGNAR

Q: Who is Findal's father?

A: FINDAIL

Q: Who is Findal's great parent?

A: ALGANOR

In the Dragon Servant's Temple

Q: What lies between myself and my opposite?

A: AND

In the Castle

Q: What tries to go up, but stops short, has but one foot, and can not walk?

A: STAIRS

In the ruins of Ancient Oracle

Q: The more it gets, the more it eats, and has it eaten all, it dies. What is it?

A: FIRE

Q: I talk without soul, I hear without ears, I talk without mouth, and I'm born in air. What am I?

A: ECHO

Q: Two little windows, they have no glass, they stand together like flowers in grass. Two little windows, they show us the world, they show us the stars, the forest, the field, the fold. What could they be?

A: EYES ❑

Flying High

Check out these high flying hints and tips for your favourite flight-sims...

Afterburner

While playing, type 'TOGETHER IN ELECTRIC DREAMS'. Then, try the following:

< - Go down a level> - Go up a levelG - More MisslesT - Less MisslesN - Extra Lives

Fly to the top of the screeen to avoid missles. Slow down on levels 8 and 17 to avoid rocks. Go full speed to dodge infra-red missles.

F29 Retaliator

For your name, enter 'THE DIDY MEN'. Click on the COLONEL icon and hit return. Now not only do you get infinite weapons, but hitting ENTER causes the plane to land automatically.

F/A-18 Interceptor

Taxi down U.S. 101, turn right at Highway 92, pull up to the EA Headquarters and blow it away!

In mission 6, once you've fired all your missiles, you can land on the Shadow Sub (if it's still afloat) and it will refuel and rearm you.

Here's another interesting trick. Select option "2 Free Flight, no enemy confrontation" from the main menu. Then select zero instead of 1 to 4. The screen will go into a spiral and scroll way south to 34 by 117 degrees, placing your plane somewhere without a runway. This happens to be in the middle of Edwards Air Force Base, where the F/A-18 was flight tested. To take off you have to use the afterburners. 117 degrees is the furthest south you'll be able to fly, but you can go in other directions.

Falcon

Press CONTROL-X (with the shift key for upper case X) for increased afterburners, eight sidewinder missiles, and a full magazine.

Also, if you have trouble landing, select END MISSION after completing your mission.

For a perfect landing every time, hold the HELP key down about 10 - 20 feet above runway.

Fighter Bomber

When you enter your name, use 'BUCKAROO'. The computer will say,'Oh No!, it's a BUCKAROO!'. Now you can try all of the 16 missions.

Flying Shark

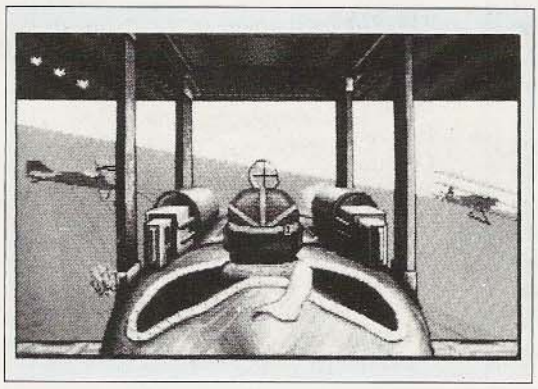
Not exactly a flight-sim, I know, but on the high score table, enter 'HSC' for unlimited lives, or 'KDJ' for invulnerability.

Wings

Sure, the planes are low tech in this one. But it's a top game. Here are some tactical tips. First, each letter of the word WINGS on the main menu does something. To access them hold down the CTRL Shift and Alt keys on the left side of the keyboard while holding down the right mouse button. While holding down these keys and button, you can click on each of the letters in "wings" with the left mouse button. Each letter does the following: "W" toggles the music on and off, "I" turns the CAPS LOCK key into an autofire button, "N" no flight school missions required for new pilots, "G" Guess, "S" Saves game without having to exit

To access the other cheats you must go to flight school.To get an awesome pilot (once only) click on the bullseye on the airplane at the top of the flight school menu. The screen will either flash or you will get a requester asking if you want to quit (say no). Then create a new pilot. Enter the name "Orca The Killer Tomato" (without the quotes, and remember it's case sensitive). Orca is all ready and doesn't need flight school.

To access a menu of options (much of which is no longer useful or active) create a new pilot. Enter the name " Who is The Riddler" Leave off the quotes but be sure and type the two leading spaces. DO NOT HIT RETURN to enter the name, hit ESCape instead. Then just follow the prompts. If you run from a hard disk you can hit LEFT-AMIGA ESCape to toggle to the Workbench screen and back.



Game Tips:

BALLOON BUSTING - The first thing to do in Balloon Busting missions is to take out the AA gun. It isn't too hard so give it a try.

DOG FIGHTS - When involved in a dog fight with other planes alwaysattack from above. This is because if you attack from below the other plane will climb which is very annoying. By attacking from above you drive the other plane down rather than up.

BEING TAILED - When you are being tailed hold the joystick to the bottom-right. You should turn off to the right and out of the other plane's line of fire.

And remember - if you're in a terminal situation, always REBOOT your machine before your demise is registered on your flight record. ❑

On the road again

You just can't beat a top class race-simulation. Here are some turbo-charged tips to boost your performance.

Chase HQ

During the game, hold down the left mouse button, the joystick button, and type 'GROWLER'. From now on hit 'T' for full time. Also, at the beginning of every stage, hit the space bar immediately for free nitro. To make your steering easier, use the 'Z' and 'X' keys.

Chase HQ II

Pause the game and type 'IN A GARDENIN'. Now pressing 'T' will reset your time. Hold down H and F5 while the game is loading, now all the roadside obstacles will dissapear.

Crazy Cars II

The routes to take for each stage are listed below:

Stage 1: Take road 15 on your right, then road 70 on your left, and keep going. Stage 2: Take road 191 to your right, then road 666 on the left, and then road 160 on your left and keep going.

Driving Force

When the main menu is showing, use the key pointer and click on the two letter I's in driving. When you start the game, your vehicle will not go off the side of the track, but it can still be hit by other cars.

Try this one too - on the selection screen, click on the two 'I's of the word driving with your mouse pointer. Then when you are ready to start hold down the 'HELP' key until the game has finished loading. You should now see the words 'YOU CHEAT' appear in the nationality boxes of the races, and you will qualify for the next race regardless of the position you finish in. When you start the game, your vehicle will not go off of the side of the track, but it can be hit by other cars.

Hard Drivin'

Get to full speed (preferably but not necessary) and press 'N' for neutral. Now you can cruise along at full speed with easy steering and invulnerability. As long as you stay in neutral you will have unlimited time as well.

Another trick is to repeatedly hit the 4 key (4th gear) until the program has an error. Continue with the right mouse button. Repeat until you get a high score.

Lotus Esprit Turbo Challenge

During a two player game type player one's name as FIELDS OF FIRE and player two's as IN A BIG COUNTRY. This eliminates the lead to qualify in the Top Ten and allows you to crawl around the track at a much safer speed. Try player's names as MOSTER and SEVENTEEN for an especially rocky ride.The codes for the first few levels are as follows:

The Skids
Peaches
Liverpool
Bagley
E Bow
Outrun

While playing enter 'RED BARCHETTA' to access the cheat mode, then try:

T - Increase time by 10 seconds (after 100 secs time looks garbled)

S - Skip Level

B - Restart current level (and get bonus points)

In Stage 3, take road 285 on the right and road 60 to your left, and keep going. In Stage 4, take road 70 on your right, road 54 on your left, road 25 on your right, road 10 to the left, and, finally road 180 on your right, and keep going.

Power Drift

Select any course except D and win all the races (you must win them to get a gold medal-finishing in the top 3 is not good enuff!) Collect all the gold medals and you enter a bonus round on a secret course with you in control of the F-14 Tomcat from Afterburner with no collision detection. Do the same thing on course D and collect all the gold medals and this time you will be in control of the Super Hang-On bike!

Supercars

Level 2 Password = ODIE

Level 3 Password = BIGC

For tons of money ($500,000), try 'RICH' as a password!

Test Drive

Hold down the button while going around turns and you will not hit the wall or fall off the cliff (other cars can still hit you).

Test Drive II

Try typing the following during the game for interesting results:

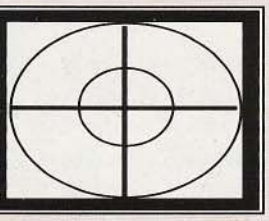
aerf - Fast acceleration and quick braking (and free life) - Keep retyping it for lots of lives.

gass - Jump to gas station with amazing average time and score

gasst - Jump to gas station and use real average time and score

bruce - Change sign on level 2 from 'Play Grand Prix Circuit' to 'Bruce Dawson Wrote This'6 ❑

Sharp Shooten'



Pump up those high scores in your favourite shoot-'em-up with this handy guide...

Awesome

At the energy swap screen move the pointer to the shield icon. Now hold down '+' on the numeric keypad and press fire. The screen should flash.

Pressing the Function keys during play will give you all the weapons.

F1 disables your enemies and F6 will restore your energy.

Better Dead Than Alien

If you are about to be hit from an incoming alien shot, press ESC to pause the game, move your ship out of the way, and press N to resume.Type 'CHAMP' on the options screen, then press the HELP key.You'll be shown a list of cheat keys.The password for the last level is 'QUARANTINE'.

Cybernoid

When viewing the title page type 'RAISTLIN' then press the space bar for unlimited ships. Then, press 'N' to advance a level.Or, try defining your keys as 'Y X E S' (in that order) for unlimited ships.

Cybernoid II

On the title page, type 'NECRONOMICON' for unlimited lives. Pause the game and hit 'N' to advance to the next level, or 'L' for the current level.

Denaris

To enter the training mode, simply press 'Z' after game select. Then plug the mouse into port 2, and hold the right mouse button while it loads.

Exolon

For infinite lives type in 'ad astra' (lowercase with space) on the high score screen.

Goldrunner

Type 'easymode' on the high-score table. From now on, F9 skips levels and makes you invulnerable. F8 turns off the cheat mode.

Hybris

Load the game as usual and don't do anything until the high score screen appears. Type 'COMMANDER' and then press the fire button. After a few moments press F10. If your ship flickers you are now invulnerable, and have infinite expansions and smart bombs.

F1-F5 = Other Six Levels of 'expansion' (you can still capture the capsules)

F8 = Advance a level (There are three)

F10 = Turn cheat mode on/off

You cannot get a high score with the cheat mode on.

R-Type

Enter 'SUMITA.' on the high score table for unlimited lives.

Rotor

Here are some codes for higher levels:

Level 1 - GAG 2 - LIP 3 - FLY 4 - MEN 5 - AWE 6 - TNT

Also, 'PIT' allows access to the battle simulator.

Xenon

Let yourself be killed off at Level 2, Stage 2 and all the aliens in the round will be destroyed.

Xenon II

What And Where To Buy

LEVEL 1, SHOP 1: Buy Health, Super Nashwan

LEVEL 1, SHOP 2: Sell Rear Shot, Buy Double Shot and Side Shot

LEVEL 2, SHOP 1: Buy Side Shot

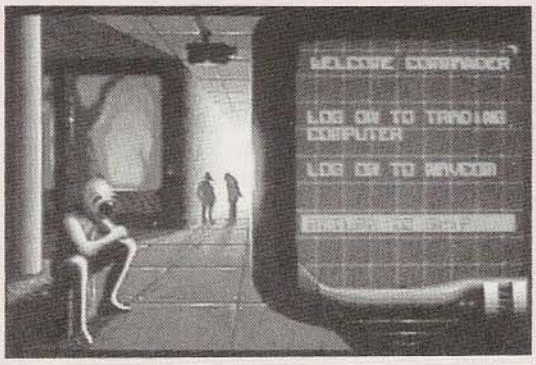
LEVEL 2, SHOP 2: Sell Side Shot

LEVEL 3, SHOP 1: Buy Health and Rear Shot.

LEVEL 3, SHOP 2: Sell Rear Shot, Buy Side Shot, Laser, and Power Up

LEVEL 4, SHOP 1: Sell Rear Shot, Sell Side Shot

Try to stick with your best weapon, and end up with 2 Cannons, 2 Lasers,and either Side Shot or Rear Shot. Always spend your money in the shops as you cannot take leftover cash.



Awesome

Halfway and End Monsters

SNAIL: Shoot at eye, avoid mines

ALIEN: Shoot eyes at either side at top. Scroll back and shoot centre eye

SPIDER: Destroy as much web as possible. Fly down to face spider and fire continuously.

CRAYFISH: Travels in figure eight. Stay below and fire in its face.

SNAKE: Attacks from left of screen.

DRAGON: Shoot the side heads first, then tail, then main head.

HEAD: Shoot both eyes, avoiding laser fire and extending tongue. Shoot at head when tongue goes in.

TANK: Use missiles

GRAND SPACESHIP: Shoot all cannons until totally destroyed.

ITEM	COST	COMMENTS
Advice	200	Only useful after Level 1
Speedup	500	Essential to survival
Half Health	500	Restores half your energy
Autofire	500	Needed if joystick has none
Nashwan	600	10 Seconds of sheer heaven
Full Health	1000	Restores full energy
Rear Shot	1000	Very effective on later levels
Small Mine	1000	Useless
Side Shot	1000	Cant be used with Rear Shot
Electroball	1200	Too sensitive to control
Power-Up	2000	Double bullet size
Large Mine	3000	Useless
Double Shot	3000	Recommended on later levels
Cannon	4000	Effective when using two
Dive	4000	Waste of Money, but fun
Missles	4000	Weak to start with
Laser	4000	Awesome - using 2 or more
Drone	4500	Two slow
Flamer	5000	Extremely limited range
Bomb	5500	Limited range but powerful
Extra Life	6000	You'll need lots of these!
Homers	6000	4 slow but powerful missles
Protection	6000	Doesn't do much
Bitmap Shades	6000	Darkens Screen - useless

X-Out

On the equipment screen, select the white bug-shaped ship and put it on the grid area. Choose the single orange coloured laser, drag it up to the face of the shop owner and keep clicking the left mouse button. You'll get $500,000 credits. ❑

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CDTV

If you haven't heard about Commodore's CDTV, then here's the place to start. Forget all the jargon about "interactive multimedia, and "Commodore Dynamic Total Vision." Here are the facts.

The name CDTV means exactly what it says. It's a machine that actually lets you play those shiny silver compact discs on your telly - and in the process introduces a whole new world of computer entertainment and education.

The CD-TV looks for all the world like a standard compact disc player, in a smart, matte black case. Looks can be deceptive. There's a complete Amiga 500 lurking under the hood. What we've got here, folks, is the perfect blend of Amiga power with CD data storage. Not only that, the machine also accepts disks in the CD+G standard - in other words, music CDs with built in graphics. These babies are on the market already in your local music store - read the small print, and you'll notice some discs come complete with digitised pictures.

The best application in this area so far has been the release of a series of Karaoke disks - the words of your favourite songs flashed up on your TV screen as the CD quality music pumps through your stereo. Good fun, but the CD-TV is capable of so much more.

There are interactive books, with colour pictures appearing on your TV screen as the text is read by a genuine human voice - none of this robotic sounding synthesised speech. This is for real. Your kids can move the pointer on the screen and highlight any word, and the voice will read it again - great reading practice!

Another early program is a world atlas. Ever wanted to check out a street map of New York? Or London? They're all here on the disk, as well as the standard world maps you'll find in any atlas. The data storage potential of a compact disk is tremendous.

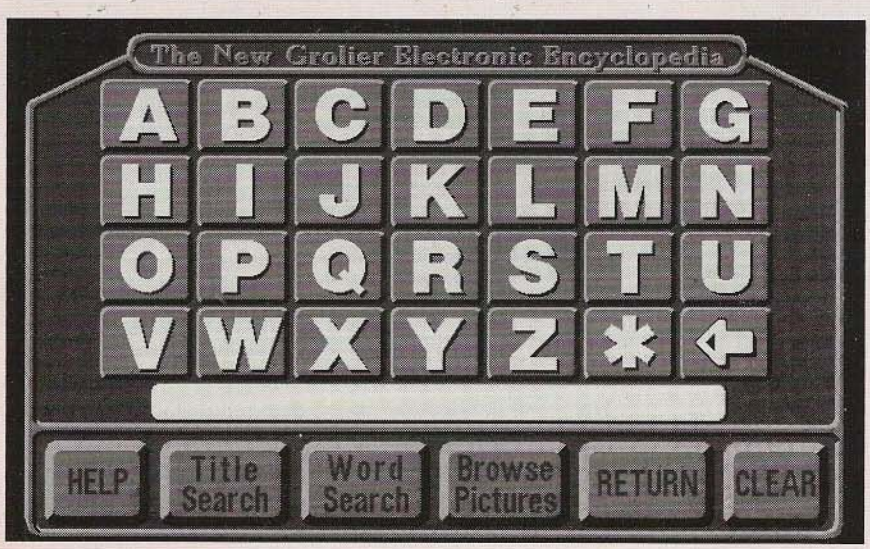
The Grolier Encyclopedia gives some idea of the CDTV's potential. All 24 volumes of the paper version of the encyclopedia fit onto a single disk, together with real-life sounds that play through your TV speakers as you read the information on the screen. Good stuff, especially if you want to get educated.

But how about some serious fun? As you'll see on the following pages, there are some startling possibilities. Like a jet-fighter simulation with real life CD quality sound.

The future for the CDTV looks bright. There are rumours of a small add on board that will let you view Kodak's new PhotoCD discs, there's a Genlock that lets you add titles to your home videos, there's a 24-bit colour board on the way that will let you display four million colours on the screen at once ... there's even an add on keyboard that lets you use the unit as a standard home computer.

Got the picture? Good. Then read on for more details. ❑

THE NEW GROLIER ELECTRONIC ENCYCLOPEDIA



You don't need big muscles to hold a twenty-one volume encylopedia in one hand. Not if it's *The New Grolier Electronic Encyclopedia*, anyway. Because this is the CDTV version, an ordinary looking silver compact disc filled with enough information to stack a traditional bookcase.

Imagine for a moment an Encyclopedia with sounds. Bird calls, for example. Choose a bird by punching in its name on the index screen, then sit back and wait a moment while the CDTV finds every reference to your favourite bird on the entire disk. Try "Finch." A list of birds in the finch family appears, including headings marked "Pictures" and "Sounds". Choose the Sound option and you'll hear the twitterings of a genuine finch - choose the "Pictures" and you'll see a colour picture as well. That's a trick your musty Britannica would have a little trouble matching.

There's more. Remember the words "That's one small step for a man, one giant leap for mankind"? You can hear them as often as you like, though I guess once or twice a day is probably enough. Then there's John F. Kennedy's "Ask not what your country can do for you" speech - well, the best thirty seconds of it, anyway. And what about Martin Luther King's immortal "Ahh had a dream"? It's included too, though again only the most famous lines.

This is multi-media at it's best. You don't just see pictures of these guys and read about them - you can hear them as well. The impact is dramatic, though the sound selections on the disc are limited.

Even more impressive is the CDTV's ability to cross reference ANY word in ANY article on the disc. As I browse through the article on Martin Luther King, for example, my curiousity is aroused about the original Martin Luther. To find out more, I simply move the arrow pointer onto the text area of the screen until it highlights the word "Luther." Press the button, and moments later there's a list of 27 items in which the name "Luther" appears. One is devoted entirely to Martin Luther, so I point and click. In moments, the information is on the screen.

"Martin Luther was a German theologian and a major leader of the protestant reformation. The son of a Saxon miner, he was born on November 10, 1483. He entered the University of Erfurt when he was 18 years old."

Now I'm the first to admit that my knowledge of geography is worse than rudimentary, and when I studied history as a lad it was a source of great frustration. Where, for example, is Erfurt? And what sort of place is it? Three clicks later I find that Erfurt is located in East Central Germany on the Gera River. The current population is around 214,000, and rainfall averages 508mm each year.

Okay, I'll admit it. I didn't need to know that. But finding out was fun, and a mental picture of young Luther running to his lectures in raincoat and gumboots adds a bit more life to the story.

In essence, the CDTV makes browsing so easy that you will find yourself learning in a much less structured manner - more breadth, though perhaps at the expense of a degree of depth.

The New Grolier Electronic Encyclopedia is the first of many reference works slated for release on the CDTV. And it's very good. Even so, there are limitations. Sure, the disc contains the equivalent to 21 hardcover books, but you won't find EVERYTHING you need. Not by a long shot. When you want a picture of Elle McPherson, it won't be there. When you want to listen to Gough Whitlam's famous speech on the steps of parliament house, you won't find it. Six hundred megabytes of data storage is big - but not that big. Having said that, there's one feature of the Grolier CD that's priceless - it actually makes learning fun. *The New Grolier Electronic Encyclopedia* is expensive, though you might find some retailers will bundle it as a special deal when you buy a CDTV. ❑

Turbocharge your CDTV

Handy add-on options for your CDTV

CDTV Keyboard Adaptor

Here's a handy low cost gadget if you've got an A-2000 keyboard lying round the house - a handy CDTV adaptor. This nifty lead lets you run your keyboard straight into the socket on the back of the CDTV, which will then run as a fully fledged Amiga compatible computer - all for just $29.95.

The cream coloured cable is around 1.5 metres long. One one end there's a socket for your keyboard lead, on the other end a plug that fits the socket on the rear of your CDTV.

In use, the keyboard is flawless. Unless you're running a rare text-based CDTV application, you'll probably be running an Amiga disk booted through an external drive. In this case, you'll find a whole new freedom exploring the CLI with your keyboard. I tried it out with the *Fish Disk Collection CD* - a compact disk containing 480 public domain Fish Disks - with great results. Without the keyboard you'll find the PD disk is a bit of a nuisance. The best you can do is use *Diskmaster* to copy the files you want onto an external disk, then run them on another Amiga. Now, however, all the programs on the disk are a going concern - a mind expanding experience, with almost 400 megabytes to explore. As I said, if you've already got the keyboard, the CDTV Keyboard Adaptor is an essential purchase.RRP $29.95

CDTV Smartcard

Ever wanted to save your game position so you could come back and play tomorrow? Of course you have. That's what the 64K Smartcard lets you do. If you've ever wondered what that little slot is for on the front of your CDTV, here's the answer. The Smart Card acts exactly like a solid state disk drive, and allows you to save game positions and high scores with ease, as well as to personalise certain programs. We've tested the smart card with games like Spirit of Excalibur, and it works like a charm.

CDTV Genlock

The Commodore CDTV Genlock is now available, and retails for $399. With the genlock in place you'll soon be able to use your CDTV for video-titling applications, as well as capturing the output from other CDTV programs on Video.

Try it the other way round Amiga 690 for '92 release

If you already have an Amiga 500, maybe you're wondering how you can tap in to the world of CDTV. Here's some good news! This year Commodore are releasing the A-690 CD unit. Originally slated as a simple standalone CD drive, the unit has been radically redesigned, and now features most of the CDTV's internal chips and memory. If Commodore manage to bring the unit out at the price suggested to me, there will be a mad scramble for stocks. And that's good for the future of the CDTV.

"The Brick" - Infra-Red Trackball and Joystick Interface

Perhaps the most exciting piece of CDTV gear I've tested lately is the long awaited "brick", a combination track-ball/joystick/controller that replaces or supplements your standard CDTV remote controller.

The unit is about twice the size of the regular controller, and certainly isn't as elegant - hence the nickname "brick" when the unit was under development. Two standard joystick sockets are mounted on the front edge of the unit. A golf-ball sized trackball sits on the right hand side at the top, with two large buttons along the upper rear edge of the unit in easy reach. A numeric keypad covers the left hand area of the top of the case.

So what does it do? Number 1, it makes moving the pointer around the screen an absolute breeze. Compared to the slow movements with the traditional controller, the trackball really flies. I tested the unit with *Mypaint*, a kid's colouring program, and the results were great - far less frustration in making menu selections and carrying out operations. In drawing mode, it could even manage smoothly curved lines, a clear impossibility with the old arrow-buttons.

Secondly, and just as importantly, the Brick lets you use a standard Amiga-style joystick. Let's face it - playing *Shadow of the Beast* with the standard CDTV controller just isn't a realistic proposition. But now, with a joystick beaming infra-red signals through the brick, it's beast slaying at its very best. There's no perceptible delay in signal transmission, and the action is fast and smooth. It's a bonus when you're playing standard Amiga games loaded from external disk too - I played *Rodlands* with no hitches at all, sitting comfortably half way across the room. RRP $199.00

I like my CDTV. But then again, I like anything with flashing lights and bits that open and shut. And I like games. So let's take a moment to review the state of play in CDTV games. Are they different? Are they better? Are they worth all the fuss? Some titles are simply enhanced versions of popular Amiga games - which is not necessarily a bad thing.

by Phil Campbell

CDTV GAMES

Xenon 2

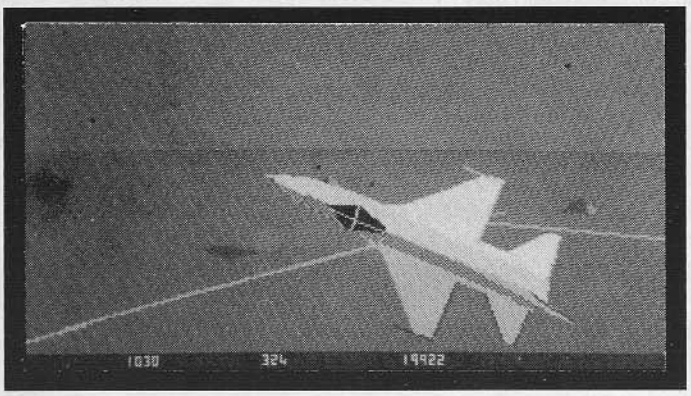
Xenon 2, for example, is a top ranking Amiga "shoot-'em-up." Set in a spidery alien universe, the original game was fast-paced and exciting. It still is. And wait til you hear the soundtrack on the CDTV version! It's astounding. You can choose any one of seven pulsing tracks, which feed directly from the CD into your stereo system.

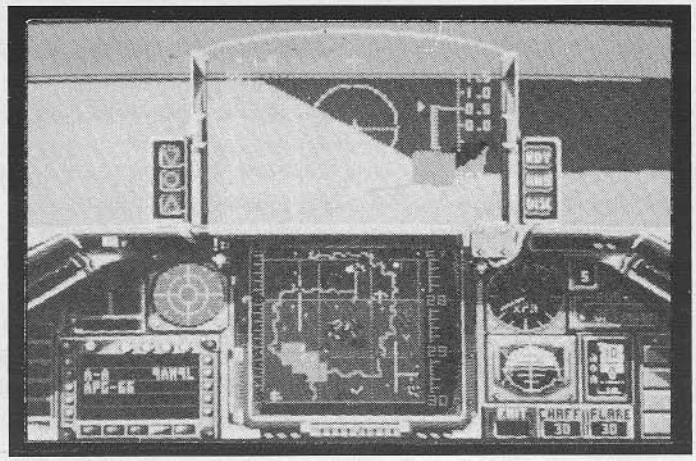
There are other minor enhancements - the alien shopkeeper you meet between levels now speaks, introducing himself in a gravelly alien voice as "Colin." Nice touch. All in all, *Xenon 2* makes good use of the CDTV's sound abilities without skimping on gameplay.

Falcon

Popular Amiga F-16 jet-sim, *Falcon*, has undergone a similar treatment. Again, the main improvements come from the ability of the CD to store huge chunks of digitised sound which the game can access instantly. As I fly, I'm in direct radio contact with my base. My co-pilot speaks too - a back seat driver who complains whenever I do anything rash. Just like my wife, who always complains when I drive at Mach 2.

Surprisingly, the improved sound effects add remarkably to the atmosphere of the game. The commands and warnings that crackle through the speakers are startlingly real, and add a whole new dimension to the game. Somehow, sounds bring a game to life even more than graphics - there's a doctoral thesis waiting to be written when somebody figures out why. But it's a fact - the era of "talkies" has arrived, and there's no turning back.





The Case of the Cautious Condor

This is a game with a different pedigree altogether - it was originally released on CD-ROM in Japan. The game is set in the summer of 1937, and you are part of an elite group enjoying the maiden flight of The Condor, a luxurious flying boat. When one of the passengers is mysteriously murdered, it's your job to uncover the dastardly murderer.

The game features over 700 hand drawn comic-book style pictures, together with a professionally recorded "radio-drama" style soundtrack.

The overall effect is impressive - an interactive, illustrated radio play. There's no animation, though illustrations fade in and out on cue in overlaid panels on the screen.

So what can I say? The CDTV games that have been released so far are good fun - I'm enjoying them a lot, especially with my ears. But so far, I have a feeling that developers are only just scratching the surface. With 550 megabytes of data at your fingertips - as well as all the flashing lights and bits that slide in and out - the sky is the limit. (Our copies of *Xenon II*, *Falcon*, and *The Case of theCautious Condor* came from The Hard Disk Cafe, phone 02 979 5833). From most CDTV dealers. ❑

CDTV INTERACTIVE BOOKS

Mudpuddle

- is a kid's book on disc. Meet a walking mud-puddle that constantly ambushes a little girl - until she gets the better of it. You can ask your CDTV to read your favourite passages, to explain or pronounce unfamiliar words, and even to identify objects in the accompanying pictures. There's music too, with sound effects, and the text and audio background can run in either Spanish or English - great for learning a second language!

Cinderella

- is another title in the Discis series. Read the story of Cinderella, her ugly step sisters and her good ol' fairy godmother like never before, with colourful interactive graphics, and a full narrative track too.

A Long Hard Day at the Ranch

- is also in the Discis series. Written by Audrey Nelson, this story is written in the form of a young boy's letter home from a holiday on his Aunt's Ranch. Desperate bandits, runaway cattle and wild adventures fill the story - while the accompanying pictures show the more mundane reality. Designed for ages 5 and upward, all the usual interactive book features are included.

The Tale of Peter Rabbit

- by Beatrix Potter is also available from Discis. With Potter's original illustrations digitised on disc, follow Peter Rabbit as Mean Mr McGregor chases him around the garden. Find out how he loses his clothes and is helped by friendly sparrows. The kids will love this one.

The Paper Bag Princess

- was demonstrated at the World of Commodore launch of the CDTV - now it's finally available. A traditional fairy tale with a beautiful princess, a handsome prince and a nasty dragon, if you saw the demonstration, you'll be wanting to get your very own copy! ❑

Stop Press

New Amigas expected this year!

by Andrew Farrell

Commodore have kept us in the dark as to the exact nature of the new machines expected this year. One thing is for certain, at least one model will arrive before Christmas. However, others may turn up in early 1993 - or even sooner. Possible model numbers of these new machines now include the 300, 300 Plus, 600, 800 Classic, 1000 Plus, 1100, 2200, 3000 Plus and 4000. Take your pick. Our guess is at least three of the above mentioned numbers are correct.

Certain Arrival

We are unsure of the model number - it could be called the 300 Plus, however other sources say it may be the Amiga 600. The World of Commodore Show in July will see the launch of this new machine, which is essentially an upgraded Amiga 500. (*see bottom picture*).

It will still use the same 68000 processor and have Amiga 500 Plus functionality. There's a new custom chip, called GAYLE, who will look after the built-in IDE hard drive (optional?). One megabyte of CHIP Ram is standard, however there is no expansion-port on the left side. In its place you'll find a new "FLASH-RAM/ROM-MEMORY-CARD" port.

You will be able to fit 2.5" hard drives, ranging from 20 Megs to 180 Megs in size, internally. All chips, except the Kickstart ROM, are surface mounted. This means that there are no sockets available to use third party add-ons or the kludgy memory expansion that requires piggy backing RAMs. It also means the manufacture cost is down.

The A500/A1000 style side expansion port is no longer. There is no place to connect expansion devices that use this port. Perhaps Commodore is going to try and corner the add on market. There is a TV-Modulator built in and an F-BAS Port too (who knows what it does?). RRP is said to be under $500.

New A2000?

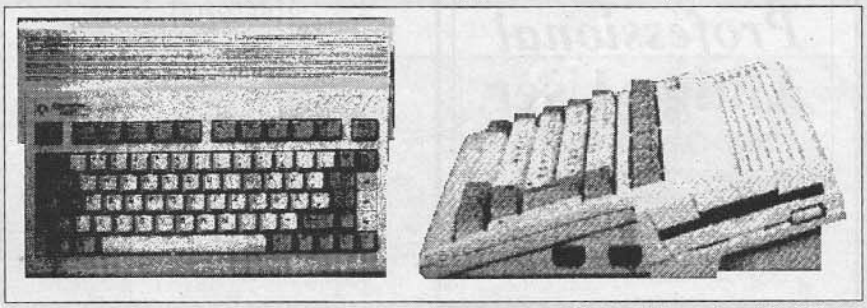
A lot less likely, but a certain replacement for the A2000 if it does arrive, is the A1000 Plus or A1100. Features on this non-existent model include a slimline 286 style case, V2 Roms, built-in SCSI controller, AA chip set compatibility - more on that later, surface mounted components (read low price), two expansion slots and one PC slot. Generally 32-bit A3000 style technology in a smaller box and at a much lower price. Sounds like a great machine. Where is it?

Talk of a faster A3000 has been around since the day this beast first shipped. Everything from 50Mhz 040's to new RISC technology have been suggested options. The best we could come up with was the following specifications: A slim line 486DX style case, RS-232 Appletalk style network adaptor, DSP co-processor offering voice recognition, data compression, 16 bit sound, modem support and more, headphone jack, three expansion slots, one video slot and two PC slots, AA chip set compatibility and built in SCSI support.

New Chipset

One thing is for sure, a new chipset is in the pipeline. The improvements are a combination of catch-up technology and more additions than you ever dreamed of. The new graphics chip (no name as yet) offers 2MB of chip RAM expandable (thanks to Alice) up to eight megabytes!

Internally we're talking full 32 bit, which means extra speed for certain. In high resolution mode, we'll enjoy a flicker free 256 colour display from a 24 bit colour palette. A new extended HAM mode of 256,000 colours, with talk of an optional full 24 bit display. Refresh speed is up to 72Hz. Workbench applications will enjoy palette sharing. Better sprite support is possible and double ghosting will be a thing of the past. Lisa will offer the full 24 bit displays we've been after. No specifications on her as yet. ❑



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